



TEST REPORT

Reference No...... : WTX25X06169770W005
Manufacturer : Lumi United Technology Co., Ltd
Room 801-804, Building 1, Chongwen Park, Nanshan iPark, No. 3370,
Address : Liuxian Avenue, Fuguang Community, Taoyuan Residential District,
Nanshan District, Shenzhen, China
Product Name : Light Switch H2 Horizontal (4 Buttons, 3 Channels), Light Switch H2
Horizontal (2 Buttons, 2 Channels), Light Switch H2 Horizontal (2 Buttons, 1
Channel)
Model No...... : WS-K14D, WS-K13D, WS-K12D
Standards : **AS/NZS CISPR 15:2025**
Date of Receipt sample : 2025-06-27
Date of Test..... : 2025-06-27 to 2025-07-28
Date of Issue : 2025-07-28
Test Report Form No. : WTX_AS CISPR 14_1_2021_A
Test Result..... : **Pass**

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of approver.

Prepared By:

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Report version

Version No.	Date of issue	Description
Rev.00	2025-07-28	Original
/	/	/

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1. GENERAL INFORMATION

1.1 Product Description for Equipment Under Test (EUT)

General Description of EUT	
Product Name:	Light Switch H2 Horizontal (4 Buttons, 3 Channels), Light Switch H2 Horizontal (2 Buttons, 2 Channels), Light Switch H2 Horizontal (2 Buttons, 1 Channel)
Trade Name:	Aqara
Model No.:	WS-K14D
Adding Model(s):	WS-K13D, WS-K12D
<i>Note: The test data is gathered from a production sample, provided by the manufacturer. The appearance of others models listed in the report is different from main-test model WS-K14D, but the circuit and the electronic construction do not change, declared by the manufacturer.</i>	

Technical Characteristics of EUT	
Rated Voltage:	110-240VAC
Rated Current:	10A
Rated Power:	/
Power Adaptor Model:	/
Highest Clock Frequency:	Below 108MHz



1.2 Test Standards

The tests were performed according to following standards:

AS/NZS CISPR 15:2025: Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product maybe which result in lowering the emission/immunity should be checked to ensure compliance has been maintained.

1.3 Test Methodology

All measurements contained in this report were conducted with the standards AS CISPR 15 for general lighting purposes equipment, and all related testing and measurement techniques intentional standards.

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1.4 EUT Setup and Operation Mode

The equipment under test (EUT) was configured to measure its highest possible emission. The test modes were adapted according to the operation manual for use, more detailed description as follows:

Test Mode List			
Test Mode	Description	Remark	Power Supply Mode
TM1	Normal working	Connect to the AC Cable; EUT Model: WS-K14D	AC230V
TM2	Standby mode	Connect to the AC Cable; EUT Model: WS-K14D	AC230V
TM3	Normal working	Connect to the AC Cable; EUT Model: WS-K13D	AC230V
TM4	Standby mode	Connect to the AC Cable; EUT Model: WS-K13D	AC230V
TM5	Normal working	Connect to the AC Cable; EUT Model: WS-K12D	AC230V
TM6	Standby mode	Connect to the AC Cable; EUT Model: WS-K12D	AC230V

EUT Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
/	/	/	/	/

Special Cable List and Details				
Cable Description	Length (m)	Shielded/Unshielded	With / Without Ferrite	With / Without Chip
AC Cable	1.0	Unshielded	Without Ferrite	Without Chip

Auxiliary Equipment List and Details			
Description	Manufacturer	Model	Serial Number
/	/	/	/



1.5 Test Equipment List and Details

Description	Manufacturer	Model	Serial No.	Cal. Date	Due. Date
<input type="checkbox"/> Chamber A: Below 1GHz					
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2025-02-23	2026-02-22
EMI Test Receiver	Rohde & Schwarz	ESPI	101611	2025-02-23	2026-02-22
Trilog Broadband Antenna	Schwarz beck	VULB9163	9163-333	2023-03-20	2026-03-19
Amplifier	HP	8447F	2805A03475	2025-02-23	2026-02-22
EMI Test Software (Radiated Emission A)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
<input type="checkbox"/> Chamber A: Above 1GHz					
Amplifier	C&D	PAP-1G18	2002	2025-02-23	2026-02-22
Horn Antenna	ETS	3117	00086197	2025-02-23	2026-02-22
Spectrum Analyzer	Rohde & Schwarz	FSP30	836079/035	2025-02-23	2026-02-22
EMI Test Software (Radiated Emission A)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
<input type="checkbox"/> Chamber B: Below 1GHz					
Trilog Broadband Antenna	Schwarz beck	VULB9163(B)	9163-635	2024-03-17	2027-03-16
Amplifier	Agilent	8447D	2944A10457	2025-02-23	2026-02-22
EMI Test Receiver	Rohde & Schwarz	ESPI	101391	2025-02-23	2026-02-22
EMI Test Software (Radiated Emission B)	Farad	EZ-EMC	RA-03A1 (1.1.4.2)	/	/
<input checked="" type="checkbox"/> Chamber C: Below 1GHz					
EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2025-02-23	2026-02-22
Trilog Broadband Antenna	Schwarz beck	VULB 9168	1194	2024-04-18	2027-04-17
Amplifier	HP	8447F	2944A03869	2025-02-23	2026-02-22
EMI Test Software (Radiated Emission C)	Farad	EZ-EMC	RA-03A1-2 (1.1.4.2)	/	/
<input checked="" type="checkbox"/> Chamber C: Above 1GHz					
Horn Antenna	POAM	RTF-118A	1820	2025-06-13	2027-06-12
Amplifier	Tonscend	TAP01018050	AP22E806235	2025-02-23	2026-02-22
EMI Test Receiver	Rohde & Schwarz	ESIB 26	100401	2025-02-23	2026-02-22
EMI Test Software (Radiated Emission C)	Farad	EZ-EMC	RA-03A1-2 (1.1.4.2)	/	/
<input type="checkbox"/> Conducted Room 1#					



EMI Test Receiver	Rohde & Schwarz	ESCI	100525	2024-12-08	2025-12-07
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100911	2025-02-23	2026-02-22
AC LISN	Schwarz beck	NSLK8126	8126-279	2025-02-23	2026-02-22
8-WIRE ISN CAT5	Schwarz beck	8158	CAT5-8158-0117	2025-02-23	2026-02-22
EMI Test Software (Conducted Emission Room 1#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3	/	/
<input checked="" type="checkbox"/> Conducted Room 2#					
EMI Test Receiver	Rohde & Schwarz	ESPI	101259	2025-02-23	2026-02-22
LISN	Rohde & Schwarz	ENV 216	100097	2025-02-23	2026-02-22
EMI Test Software (Conducted Emission Room 2#)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3	/	/
<input checked="" type="checkbox"/> Radiated Electromagnetic Disturbances (9KHz-30MHz)					
Loop Antenna	ZHINAN	ZN30401	19037	2025-02-23	2026-02-22
EMI Test Receiver	Rohde & Schwarz	ESCI	100525	2024-12-08	2025-12-07
EMI Test Software (Radiated Electromagnetic Disturbances)	Farad	EZ-EMC	3A1*CE-RE 1.1.4.3	/	/

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2. SUMMARY OF TEST RESULTS

Standards	Description of Test Item	Result
AS/NZS CISPR 15	Disturbance Voltages	Compliant
	Radiated Electromagnetic Disturbances (Frequency range 9kHz to 30MHz)	Compliant
	Radiated Electromagnetic Disturbances (Frequency range 30MHz to 300MHz)	Compliant

N/A: not applicable

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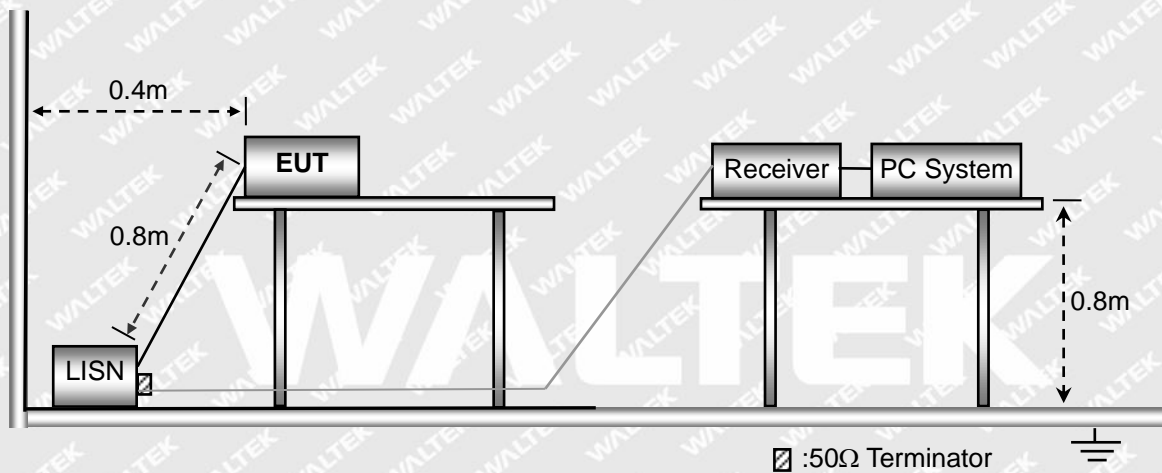
3. Conducted Emission

3.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Conducted Emissions	Conducted	9-150kHz $\pm 3.74\text{dB}$
		0.15-30MHz $\pm 3.34\text{dB}$

3.2 Basic Test Setup Block Diagram



3.3 Environmental Conditions

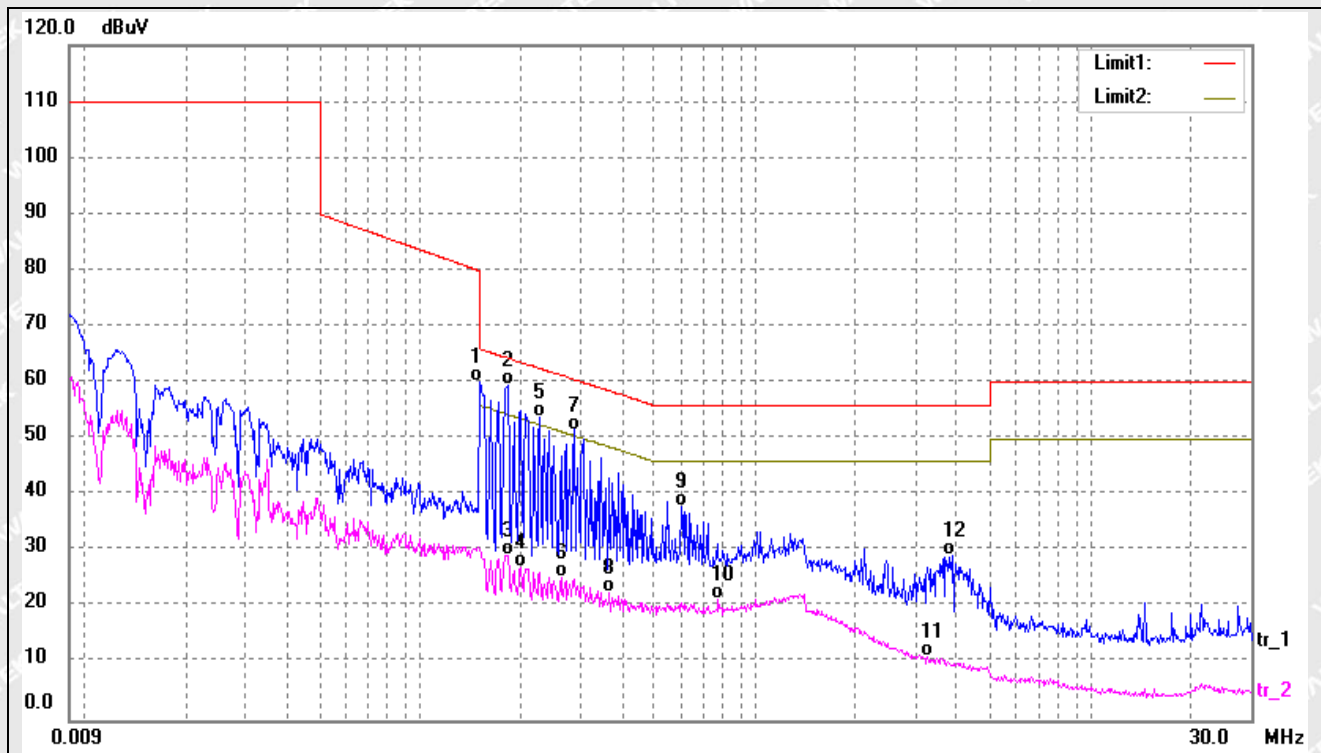
Temperature:	26 °C
Relative Humidity:	60 %
ATM Pressure:	1015 mbar

3.4 Summary of Test Results

Please find the results below:



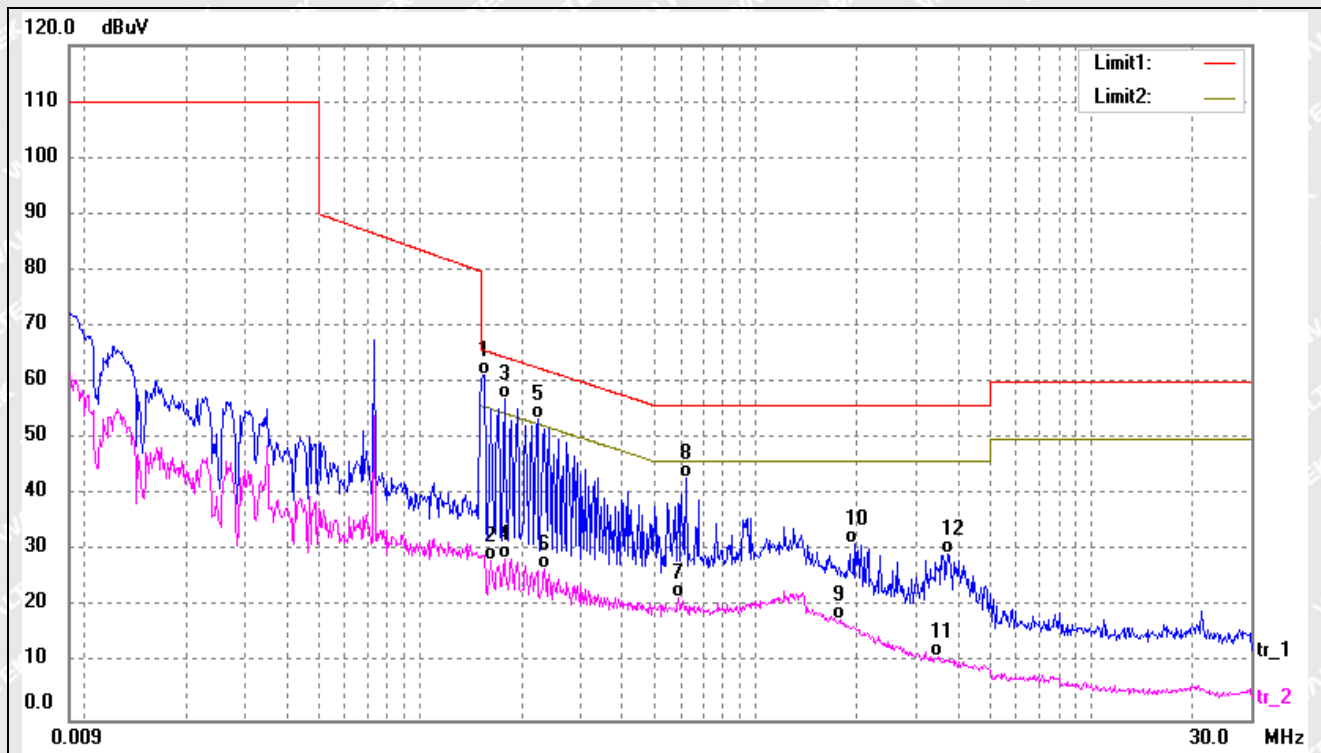
Test mode:	TM1	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	50.62	9.43	60.05	65.99	-5.94	QP
2*	0.1819	49.85	9.56	59.41	64.39	-4.98	QP
3	0.1819	19.82	9.56	29.38	54.39	-25.01	AVG
4	0.1980	17.48	9.62	27.10	53.69	-26.59	AVG
5	0.2260	44.34	9.63	53.97	62.59	-8.62	QP
6	0.2620	15.70	9.63	25.33	51.36	-26.03	AVG
7	0.2860	41.97	9.63	51.60	60.64	-9.04	QP
8	0.3660	12.95	9.64	22.59	48.59	-26.00	AVG
9	0.6020	28.31	9.69	38.00	56.00	-18.00	QP
10	0.7780	11.73	9.75	21.48	46.00	-24.52	AVG
11	3.2740	1.79	9.41	11.20	46.00	-34.80	AVG
12	3.8540	19.67	9.45	29.12	56.00	-26.88	QP



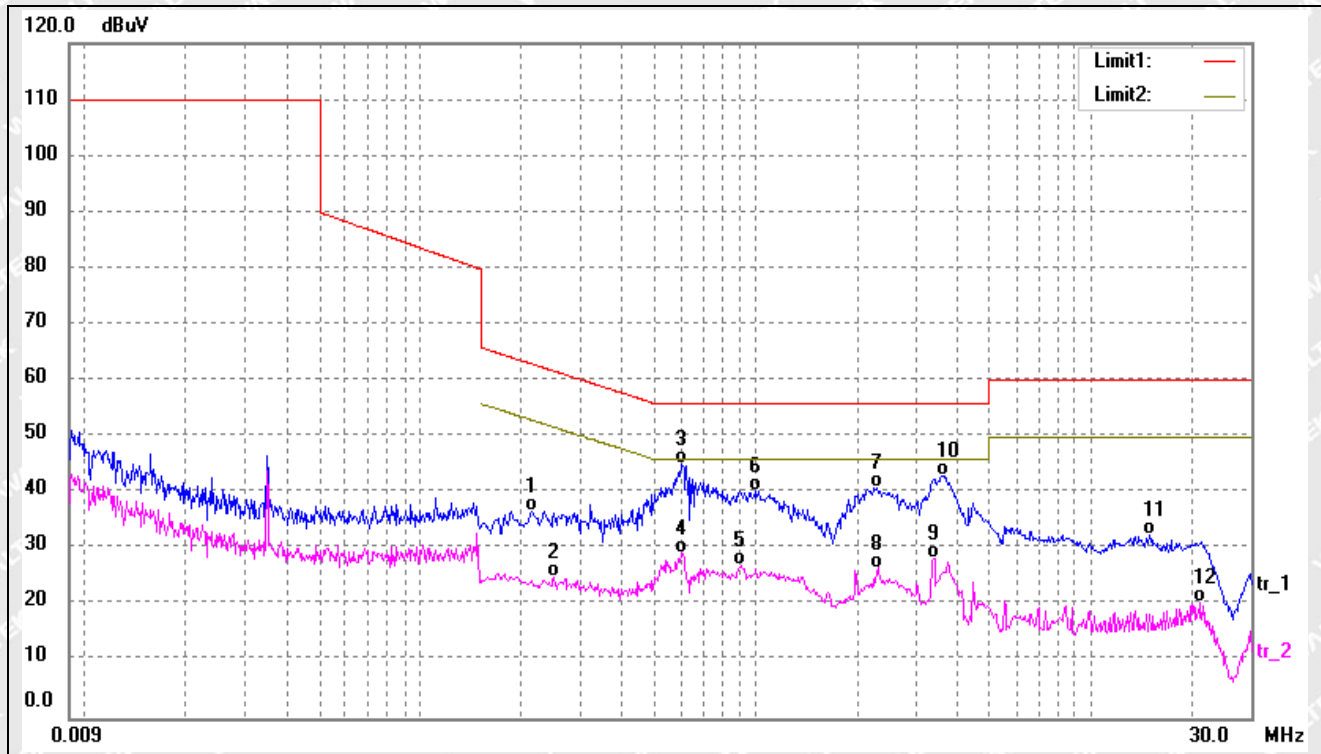
Test mode:	TM1	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1539	51.96	9.45	61.41	65.78	-4.37	QP
2	0.1620	18.77	9.48	28.25	55.36	-27.11	AVG
3	0.1780	47.53	9.54	57.07	64.57	-7.50	QP
4	0.1780	19.08	9.54	28.62	54.57	-25.95	AVG
5	0.2220	43.94	9.63	53.57	62.74	-9.17	QP
6	0.2340	17.35	9.63	26.98	52.30	-25.32	AVG
7	0.5899	12.13	9.69	21.82	46.00	-24.18	AVG
8	0.6260	33.39	9.70	43.09	56.00	-12.91	QP
9	1.7940	8.31	9.44	17.75	46.00	-28.25	AVG
10	1.9740	21.98	9.37	31.35	56.00	-24.65	QP
11	3.4980	1.88	9.42	11.30	46.00	-34.70	AVG
12	3.7460	20.08	9.45	29.53	56.00	-26.47	QP



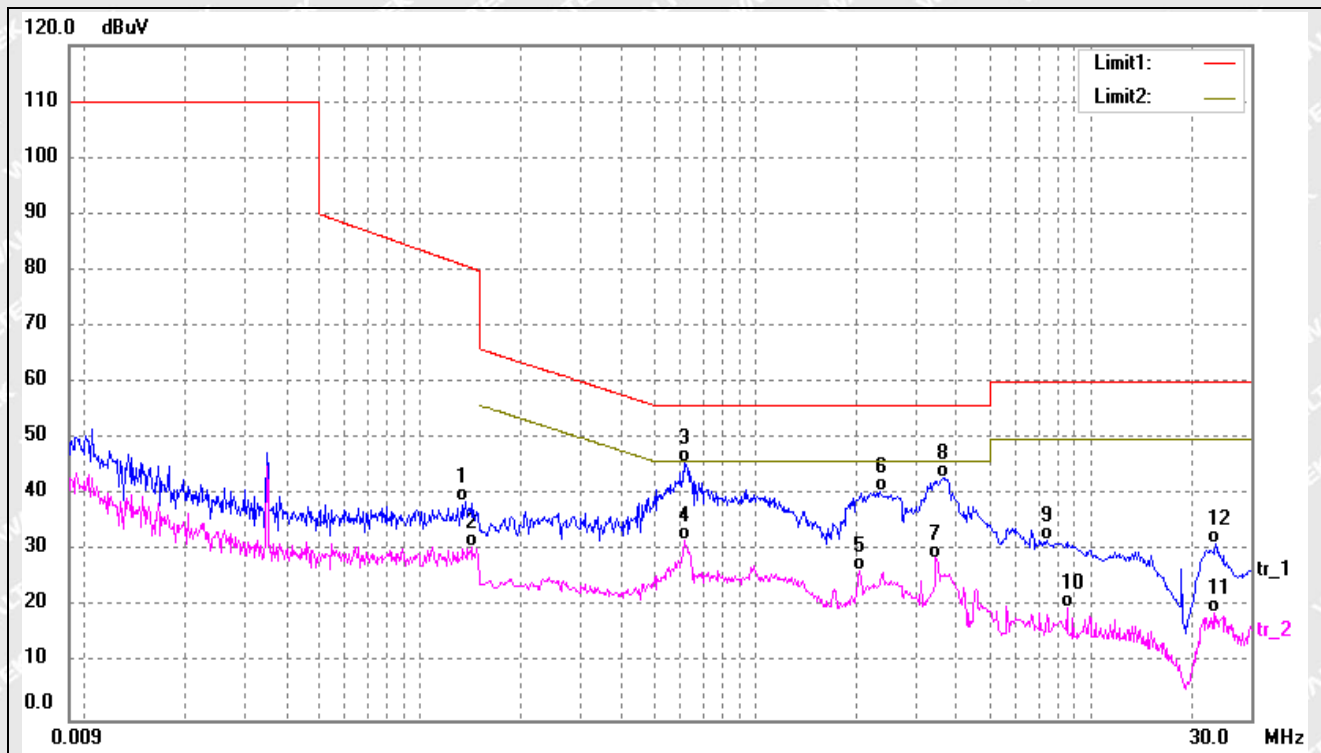
Test mode:	TM2	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2140	27.04	9.63	36.67	63.04	-26.37	QP
2	0.2500	15.39	9.63	25.02	51.75	-26.73	AVG
3*	0.6020	35.42	9.69	45.11	56.00	-10.89	QP
4	0.6100	19.61	9.69	29.30	46.00	-16.70	AVG
5	0.9060	17.36	9.75	27.11	46.00	-18.89	AVG
6	1.0260	30.71	9.75	40.46	56.00	-15.54	QP
7	2.2700	31.58	9.37	40.95	56.00	-15.05	QP
8	2.3140	17.32	9.38	26.70	46.00	-19.30	AVG
9	3.4220	19.07	9.42	28.49	46.00	-17.51	AVG
10	3.5860	33.75	9.44	43.19	56.00	-12.81	QP
11	15.0100	23.10	9.51	32.61	60.00	-27.39	QP
12	21.2780	11.00	9.54	20.54	50.00	-29.46	AVG



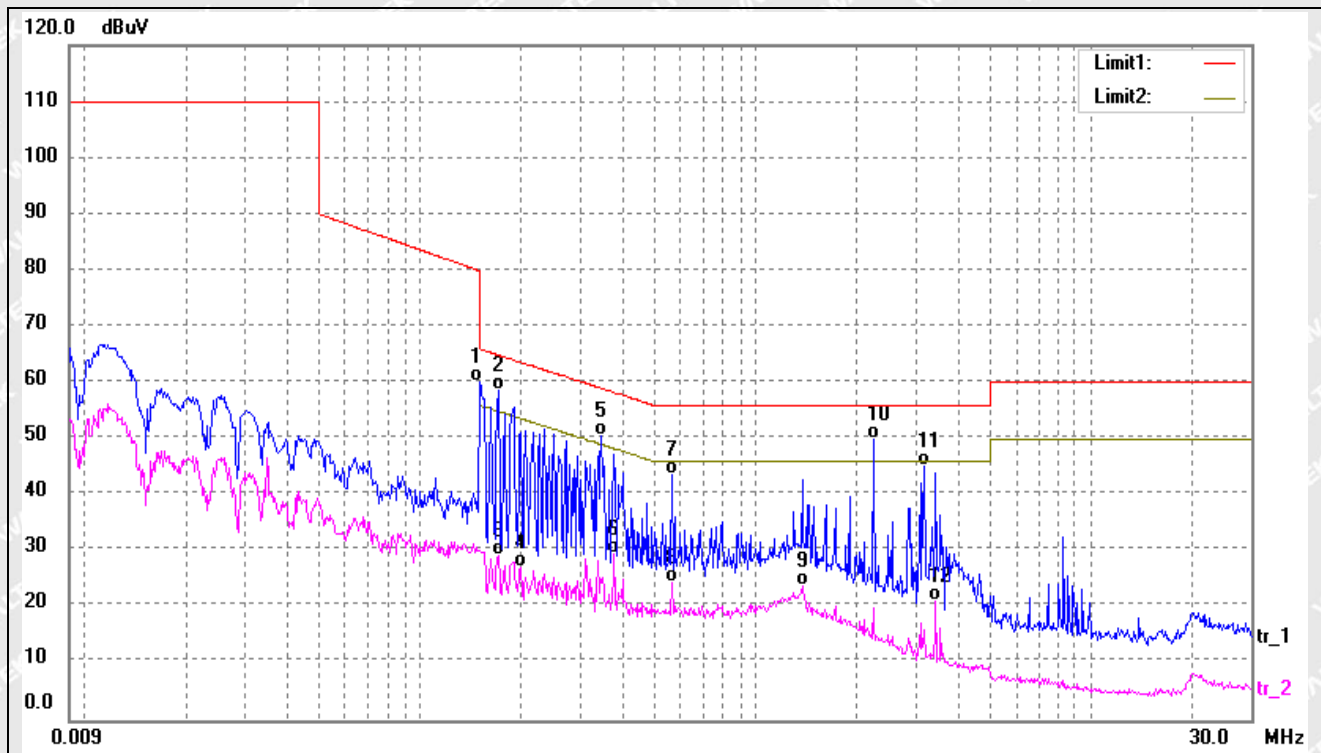
Test mode:	TM2	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1373	29.29	9.44	38.73	80.80	-42.07	QP
2	0.1420	21.22	9.44	30.66	56.45	-25.79	AVG
3*	0.6140	36.00	9.70	45.70	56.00	-10.30	QP
4	0.6140	22.32	9.70	32.02	46.00	-13.98	AVG
5	2.0420	17.07	9.36	26.43	46.00	-19.57	AVG
6	2.3500	31.14	9.38	40.52	56.00	-15.48	QP
7	3.4580	19.38	9.42	28.80	46.00	-17.20	AVG
8	3.6300	33.65	9.44	43.09	56.00	-12.91	QP
9	7.4100	22.21	9.79	32.00	60.00	-28.00	QP
10	8.4980	10.25	9.80	20.05	50.00	-29.95	AVG
11	23.1660	9.49	9.54	19.03	50.00	-30.97	AVG
12	23.5500	21.77	9.54	31.31	60.00	-28.69	QP



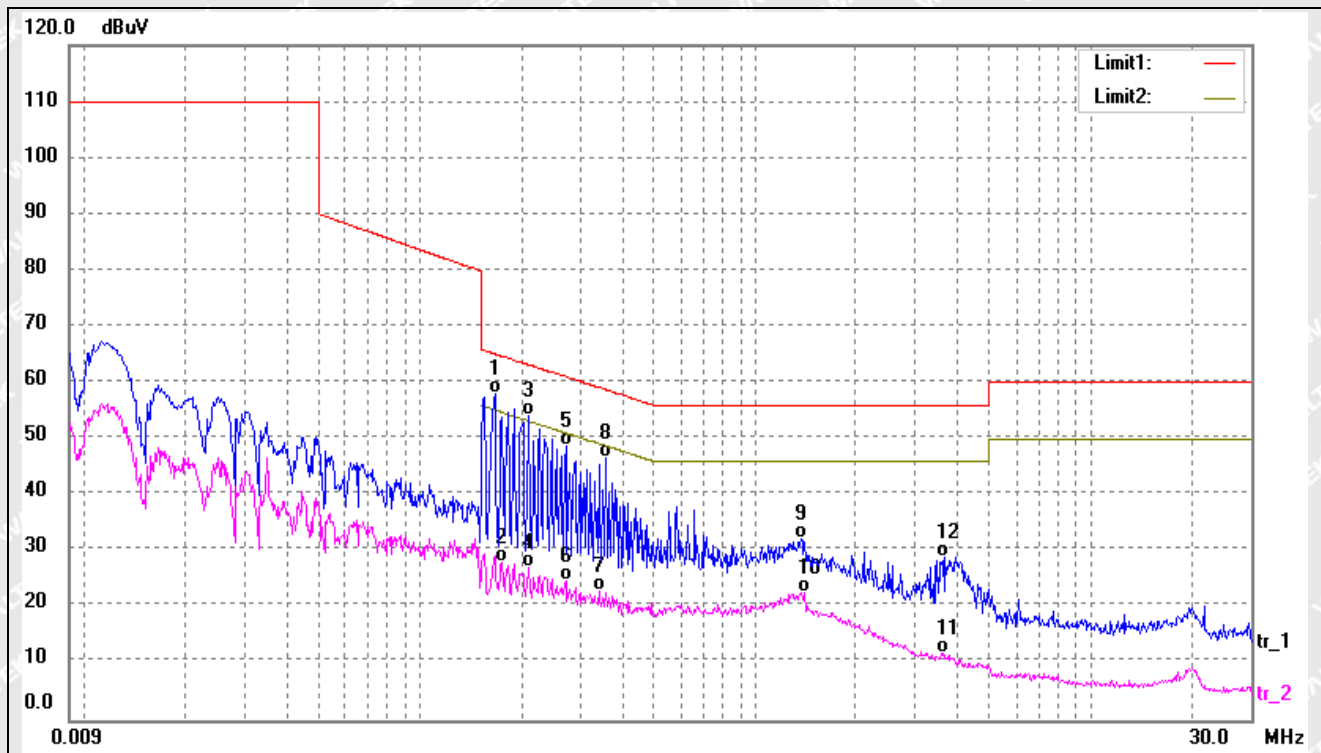
Test mode:	TM3	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1500	50.73	9.53	60.26	65.99	-5.73	QP
2	0.1700	48.92	9.61	58.53	64.96	-6.43	QP
3	0.1700	19.65	9.61	29.26	54.96	-25.70	AVG
4	0.1980	17.37	9.72	27.09	53.69	-26.60	AVG
5	0.3460	41.05	9.58	50.63	59.06	-8.43	QP
6	0.3780	19.99	9.56	29.55	48.32	-18.77	AVG
7	0.5660	34.25	9.48	43.73	56.00	-12.27	QP
8	0.5660	14.99	9.48	24.47	46.00	-21.53	AVG
9	1.3860	14.21	9.65	23.86	46.00	-22.14	AVG
10	2.2540	40.17	9.91	50.08	56.00	-5.92	QP
11	3.1860	35.35	9.71	45.06	56.00	-10.94	QP
12	3.4460	11.59	9.66	21.25	46.00	-24.75	AVG



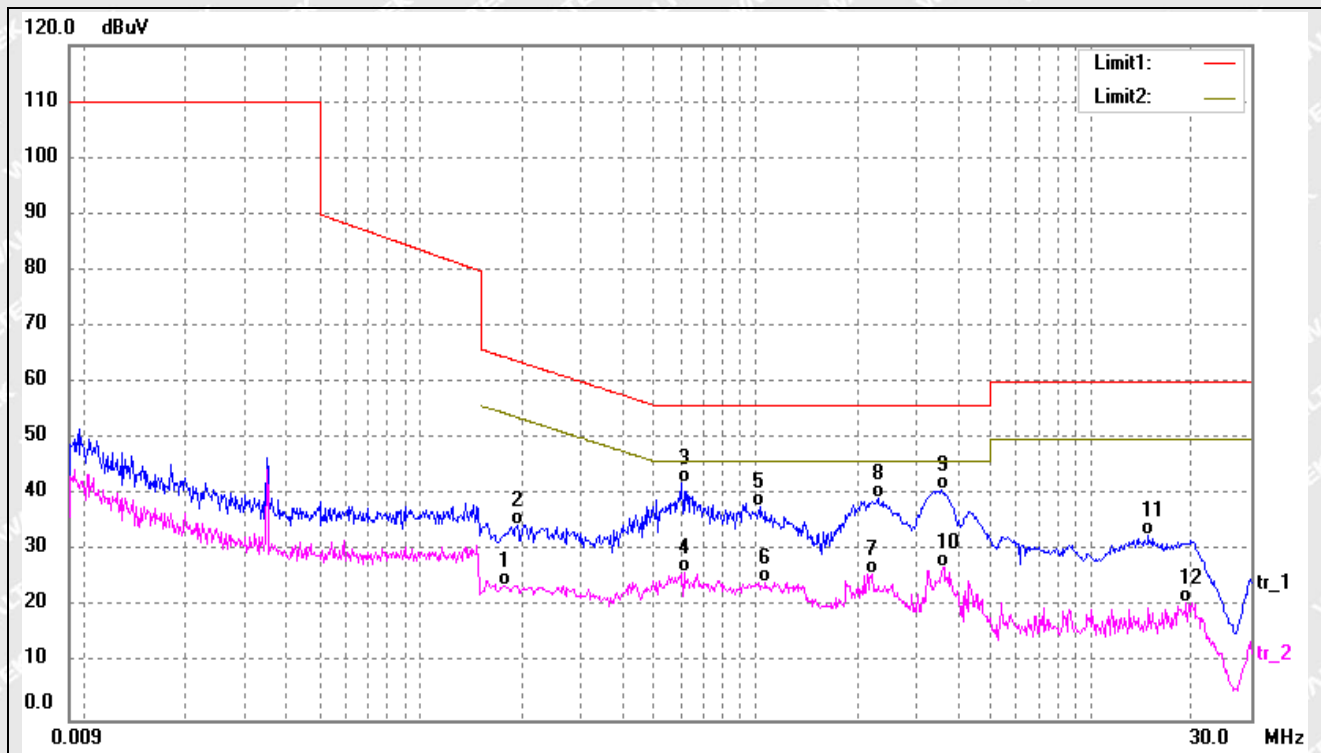
Test mode:	TM3	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1660	48.56	9.59	58.15	65.15	-7.00	QP
2	0.1740	18.37	9.63	28.00	54.76	-26.76	AVG
3	0.2100	44.36	9.72	54.08	63.20	-9.12	QP
4	0.2100	17.47	9.72	27.19	53.20	-26.01	AVG
5	0.2700	39.02	9.66	48.68	61.12	-12.44	QP
6	0.2700	15.23	9.66	24.89	51.12	-26.23	AVG
7	0.3420	13.40	9.59	22.99	49.15	-26.16	AVG
8	0.3580	37.16	9.58	46.74	58.77	-12.03	QP
9	1.3700	22.71	9.65	32.36	56.00	-23.64	QP
10	1.3980	12.91	9.66	22.57	46.00	-23.43	AVG
11	3.6140	2.26	9.64	11.90	46.00	-34.10	AVG
12	3.6780	19.39	9.62	29.01	56.00	-26.99	QP



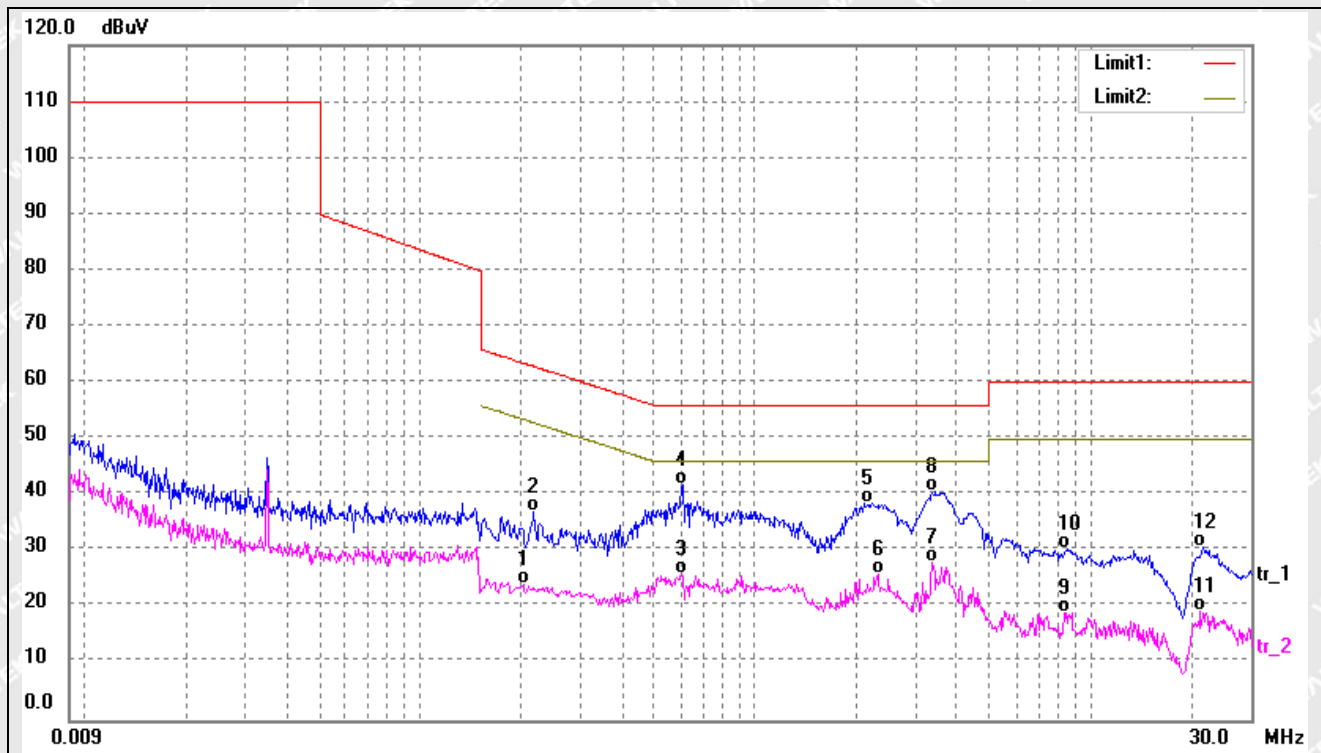
Test mode:	TM4	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1780	14.33	9.64	23.97	54.57	-30.60	AVG
2	0.1940	25.08	9.71	34.79	63.86	-29.07	QP
3*	0.6060	32.66	9.49	42.15	56.00	-13.85	QP
4	0.6140	16.90	9.50	26.40	46.00	-19.60	AVG
5	1.0420	28.35	9.48	37.83	56.00	-18.17	QP
6	1.0700	15.07	9.50	24.57	46.00	-21.43	AVG
7	2.2220	15.97	9.92	25.89	46.00	-20.11	AVG
8	2.3300	29.45	9.89	39.34	56.00	-16.66	QP
9	3.6100	31.23	9.64	40.87	56.00	-15.13	QP
10	3.6500	17.58	9.63	27.21	46.00	-18.79	AVG
11	14.9020	23.31	9.61	32.92	60.00	-27.08	QP
12	19.2979	11.02	9.81	20.83	50.00	-29.17	AVG



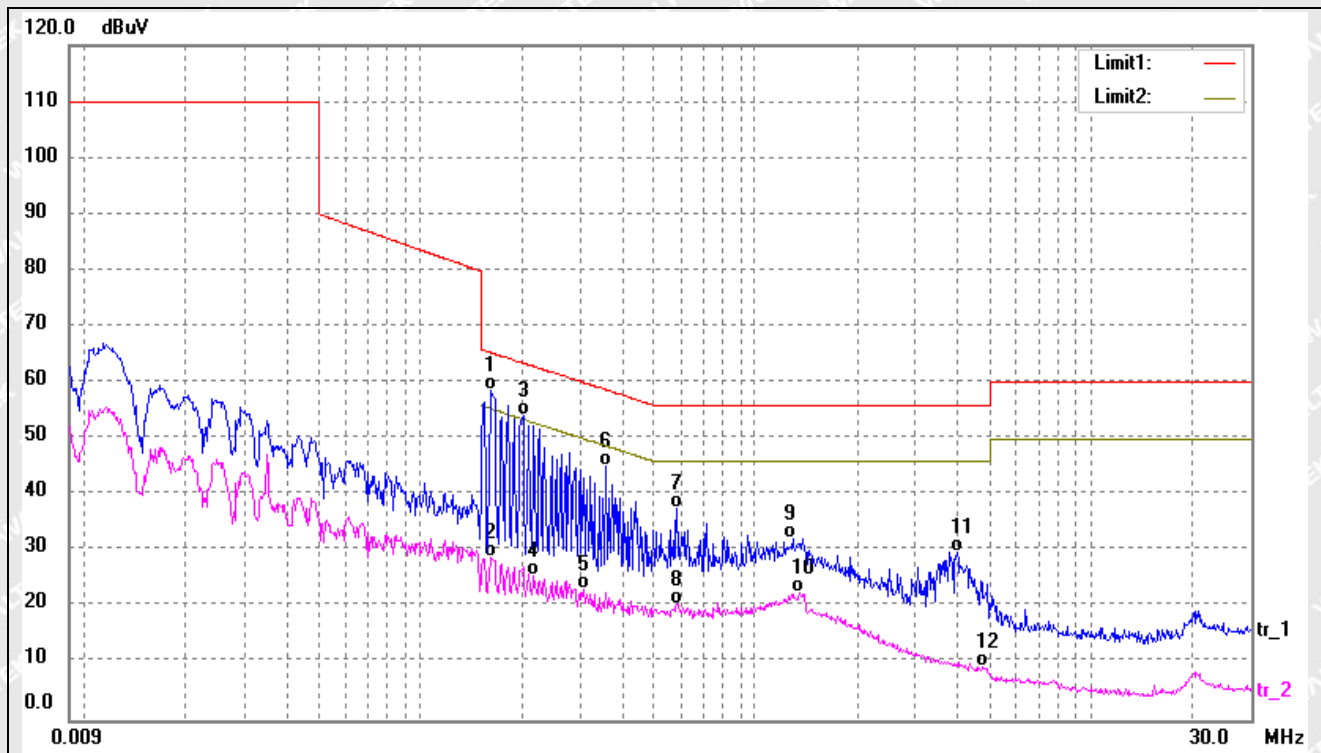
Test mode:	TM4	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2020	14.30	9.73	24.03	53.52	-29.49	AVG
2	0.2179	27.23	9.71	36.94	62.89	-25.95	QP
3	0.6059	16.60	9.49	26.09	46.00	-19.91	AVG
4*	0.6099	32.22	9.50	41.72	56.00	-14.28	QP
5	2.1259	28.66	9.93	38.59	56.00	-17.41	QP
6	2.3260	16.13	9.89	26.02	46.00	-19.98	AVG
7	3.3820	18.31	9.67	27.98	46.00	-18.02	AVG
8	3.4620	30.88	9.66	40.54	56.00	-15.46	QP
9	8.3859	9.37	9.75	19.12	50.00	-30.88	AVG
10	8.5020	20.59	9.75	30.34	60.00	-29.66	QP
11	21.2300	9.49	9.88	19.37	50.00	-30.63	AVG
12	21.6340	20.72	9.89	30.61	60.00	-29.39	QP



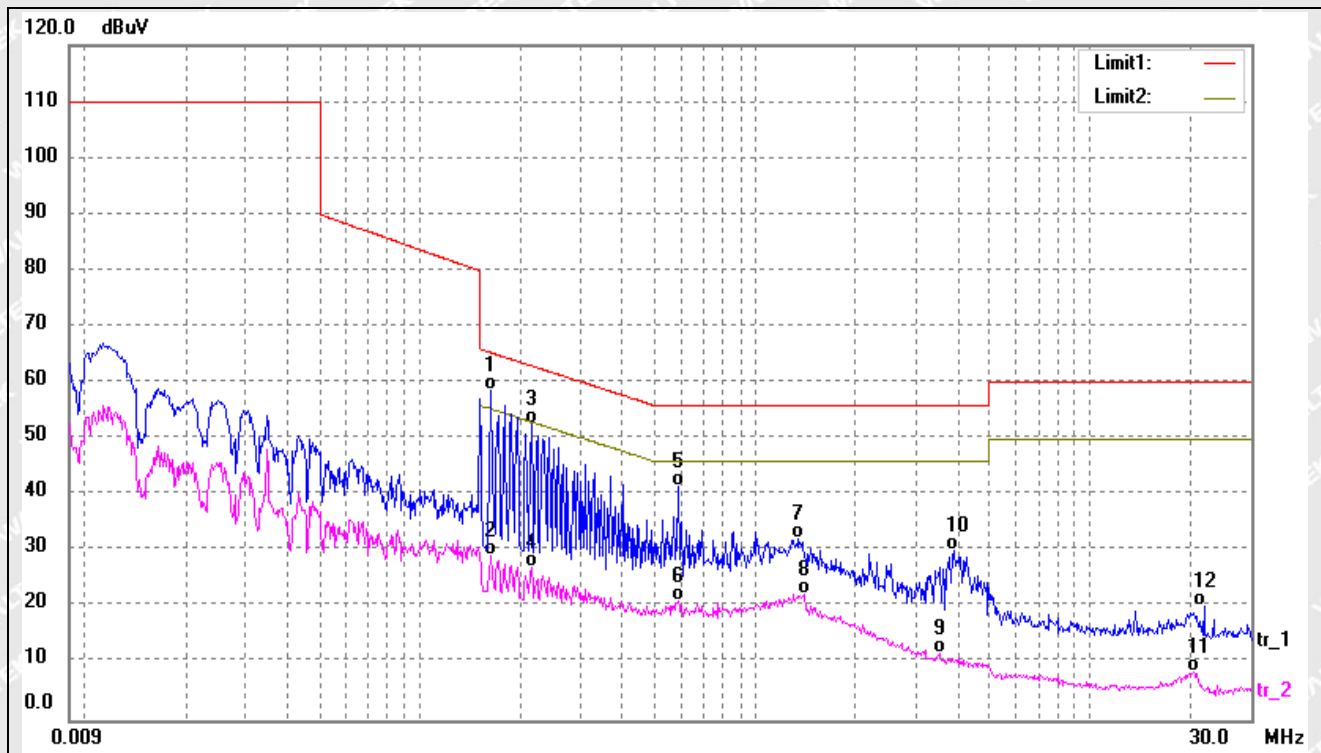
Test mode:	TM5	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1620	49.08	9.58	58.66	65.36	-6.70	QP
2	0.1620	19.36	9.58	28.94	55.36	-26.42	AVG
3	0.2020	44.45	9.73	54.18	63.52	-9.34	QP
4	0.2180	16.06	9.71	25.77	52.89	-27.12	AVG
5	0.3060	13.58	9.62	23.20	50.08	-26.88	AVG
6	0.3580	35.49	9.58	45.07	58.77	-13.70	QP
7	0.5860	28.03	9.49	37.52	56.00	-18.48	QP
8	0.5899	11.08	9.49	20.57	46.00	-25.43	AVG
9	1.2980	22.77	9.61	32.38	56.00	-23.62	QP
10	1.3619	13.13	9.64	22.77	46.00	-23.23	AVG
11	4.0020	20.21	9.56	29.77	56.00	-26.23	QP
12	4.7940	-0.18	9.60	9.42	46.00	-36.58	AVG



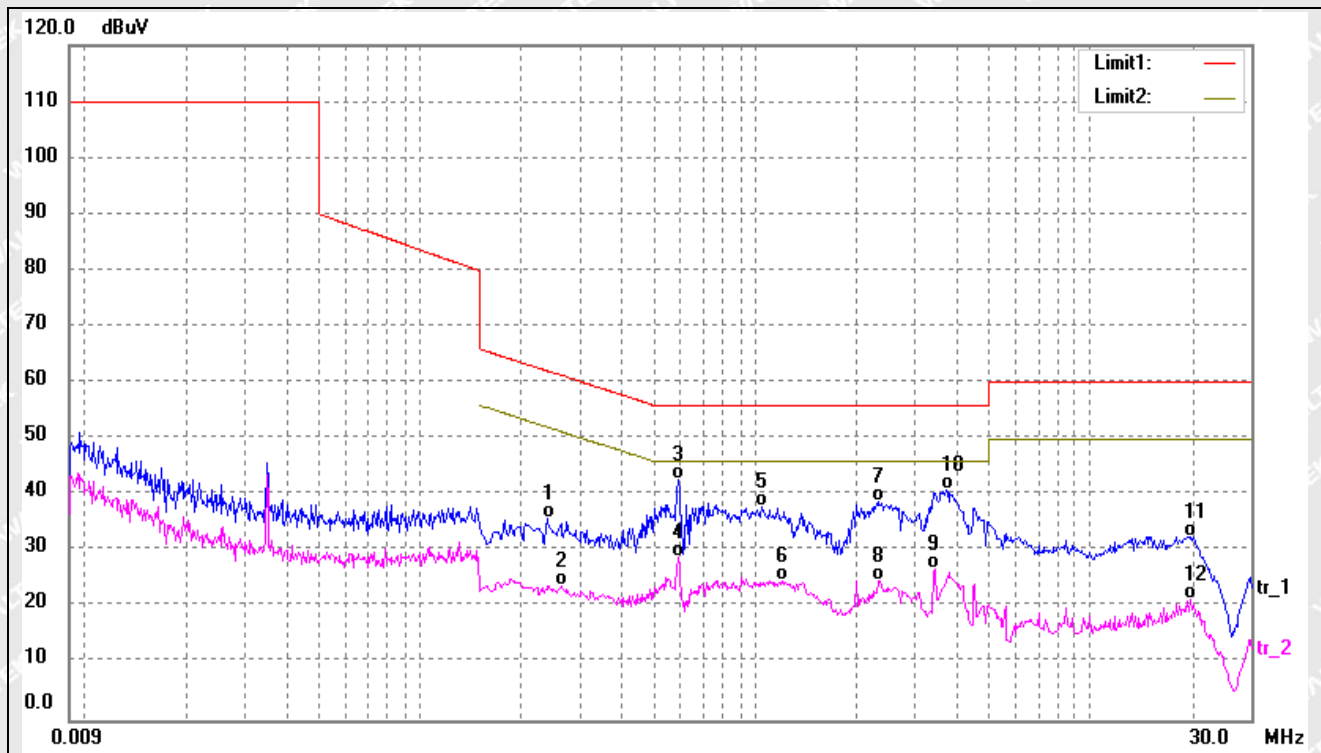
Test mode:	TM5	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1*	0.1620	49.17	9.58	58.75	65.36	-6.61	QP
2	0.1620	19.61	9.58	29.19	55.36	-26.17	AVG
3	0.2140	43.01	9.72	52.73	63.04	-10.31	QP
4	0.2140	17.55	9.72	27.27	53.04	-25.77	AVG
5	0.5899	32.15	9.49	41.64	56.00	-14.36	QP
6	0.5899	11.63	9.49	21.12	46.00	-24.88	AVG
7	1.3460	22.49	9.63	32.12	56.00	-23.88	QP
8	1.3980	12.69	9.66	22.35	46.00	-23.65	AVG
9	3.5260	2.13	9.65	11.78	46.00	-34.22	AVG
10	3.9140	20.68	9.58	30.26	56.00	-25.74	QP
11	20.3180	-1.28	9.85	8.57	50.00	-41.43	AVG
12	21.6900	10.28	9.89	20.17	60.00	-39.83	QP



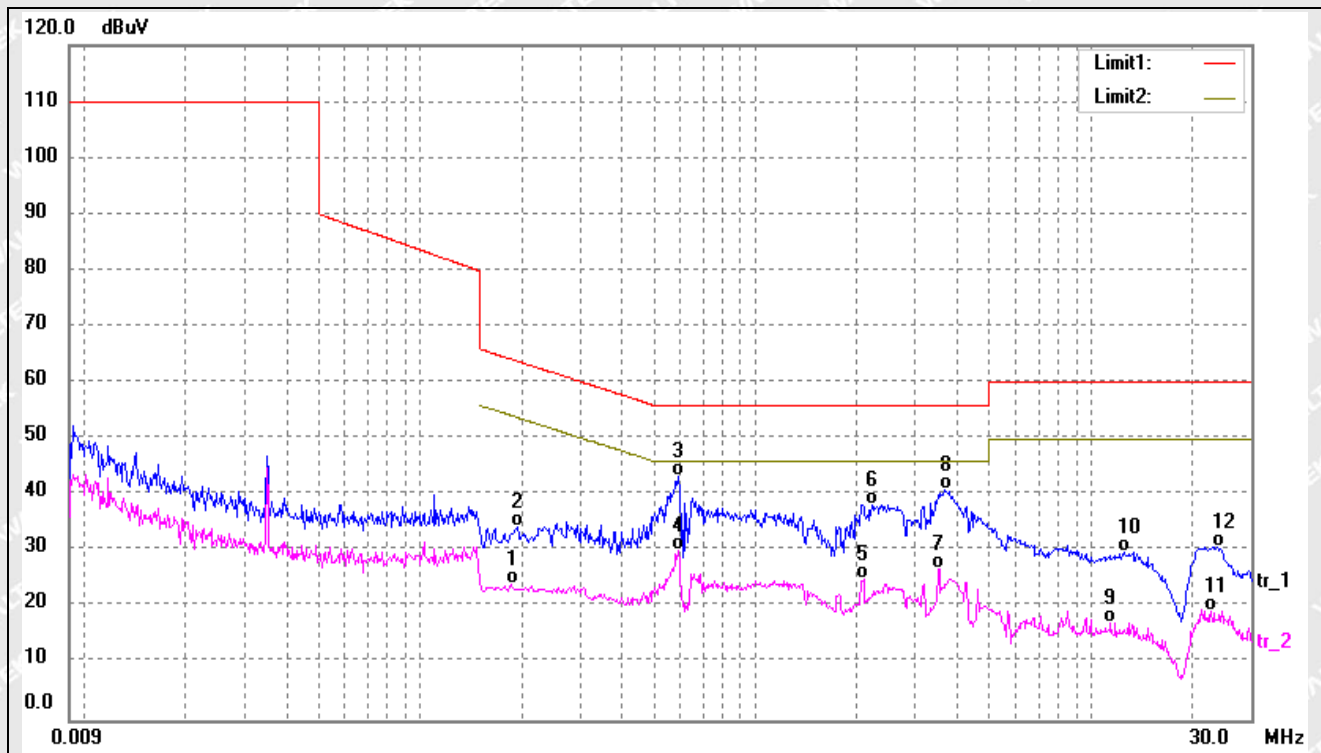
Test mode:	TM6	Polarity:	Neutral
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.2380	26.17	9.69	35.86	62.16	-26.30	QP
2	0.2620	14.25	9.67	23.92	51.36	-27.44	AVG
3*	0.5899	33.39	9.49	42.88	56.00	-13.12	QP
4	0.5899	19.55	9.49	29.04	46.00	-16.96	AVG
5	1.0460	28.35	9.48	37.83	56.00	-18.17	QP
6	1.2020	15.27	9.56	24.83	46.00	-21.17	AVG
7	2.3260	28.88	9.89	38.77	56.00	-17.23	QP
8	2.3260	14.91	9.89	24.80	46.00	-21.20	AVG
9	3.4340	17.12	9.66	26.78	46.00	-19.22	AVG
10	3.7300	31.36	9.61	40.97	56.00	-15.03	QP
11	19.8340	22.77	9.83	32.60	60.00	-27.40	QP
12	19.8420	11.73	9.83	21.56	50.00	-28.44	AVG



Test mode:	TM6	Polarity:	Line
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB)	Result (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1860	14.38	9.67	24.05	54.21	-30.16	AVG
2	0.1940	24.54	9.71	34.25	63.86	-29.61	QP
3*	0.5899	33.95	9.49	43.44	56.00	-12.56	QP
4	0.5899	20.74	9.49	30.23	46.00	-15.77	AVG
5	2.0980	15.23	9.94	25.17	46.00	-20.83	AVG
6	2.2220	28.43	9.92	38.35	56.00	-17.65	QP
7	3.5420	17.25	9.65	26.90	46.00	-19.10	AVG
8	3.6900	31.21	9.62	40.83	56.00	-15.17	QP
9	11.4980	7.61	9.75	17.36	50.00	-32.64	AVG
10	12.6140	20.20	9.71	29.91	60.00	-30.09	QP
11	22.8779	9.44	9.93	19.37	50.00	-30.63	AVG
12	23.7700	20.93	9.95	30.88	60.00	-29.12	QP

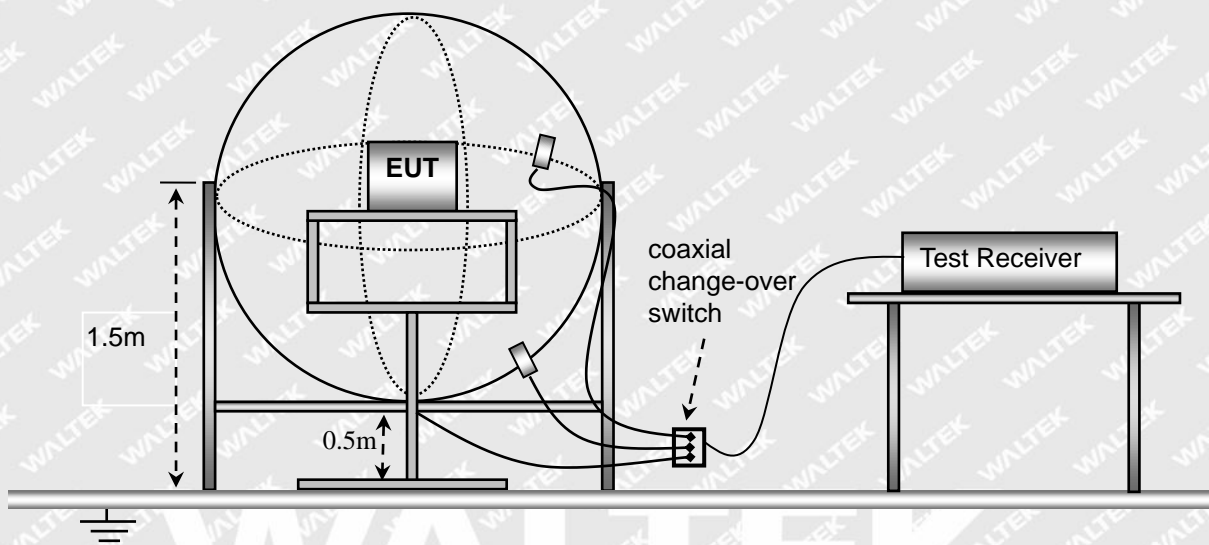


4. Radiated Electromagnetic Disturbances (9kHz to 30MHz)

4.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement is ± 3.6 dB.

4.2 Basic Test Setup Block Diagram



4.3 Environmental Conditions

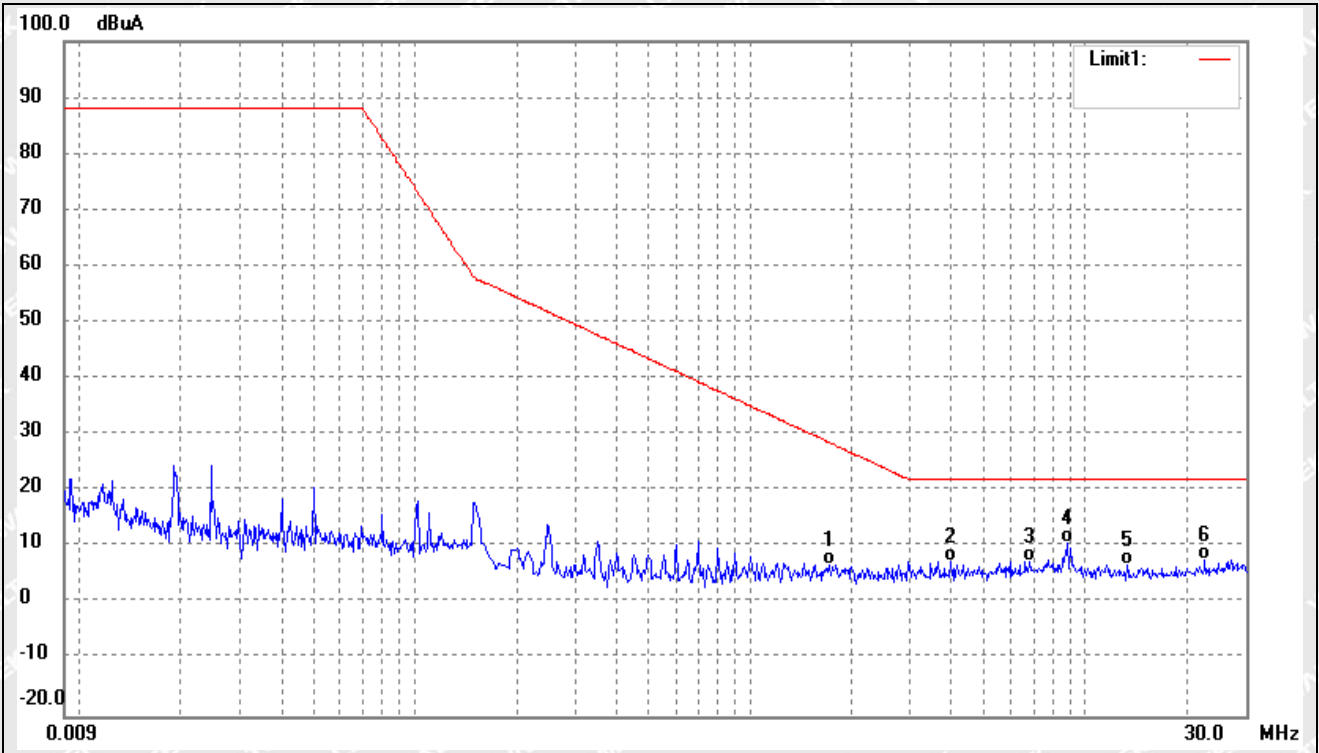
Temperature:	22 °C
Relative Humidity:	55 %
ATM Pressure:	1015 mbar

4.4 Summary of Test Result

Please find the results below:



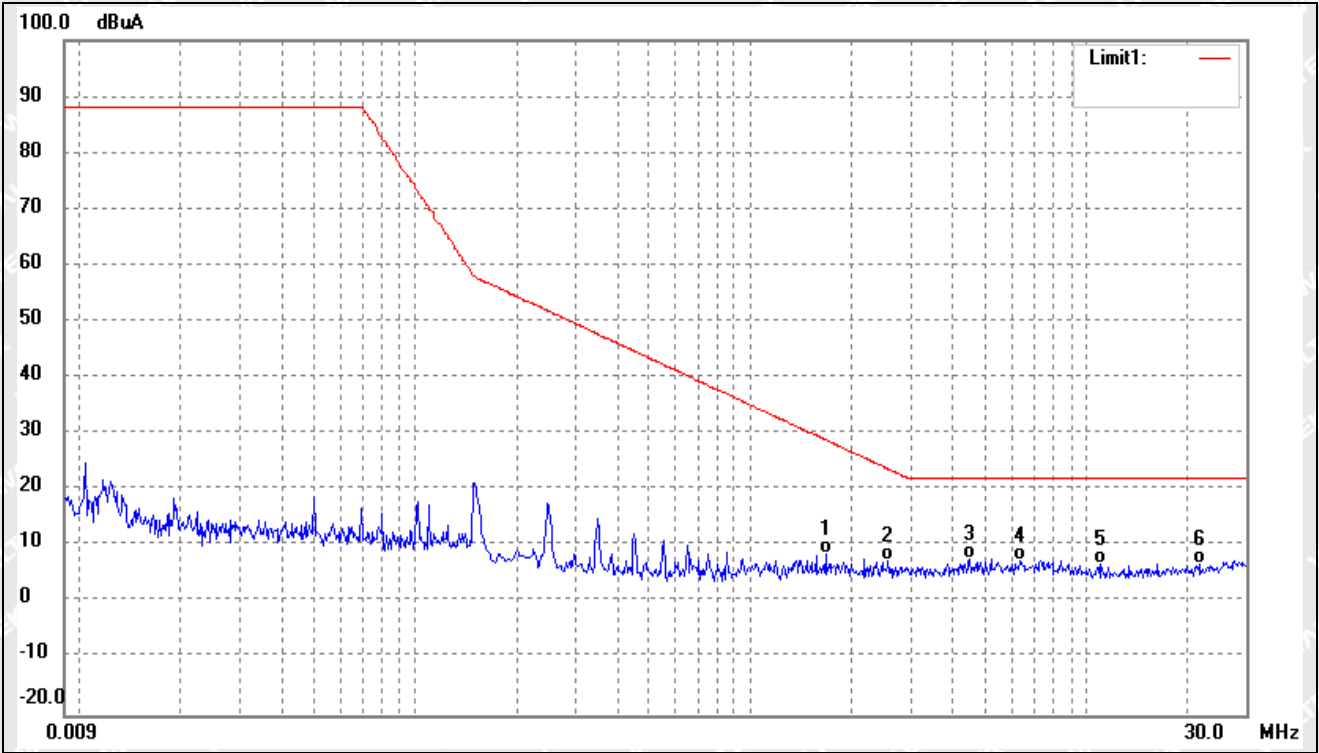
Test mode:	TM1	Polarity:	X
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No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Detector
1	1.7140	6.71	0.00	6.71	28.73	-22.02	QP
2	3.9540	7.54	0.00	7.54	22.00	-14.46	QP
3	6.8460	7.57	0.00	7.57	22.00	-14.43	QP
4*	8.8820	10.87	0.00	10.87	22.00	-11.13	QP
5	13.2620	6.75	0.00	6.75	22.00	-15.25	QP
6	22.6740	7.84	0.00	7.84	22.00	-14.16	QP



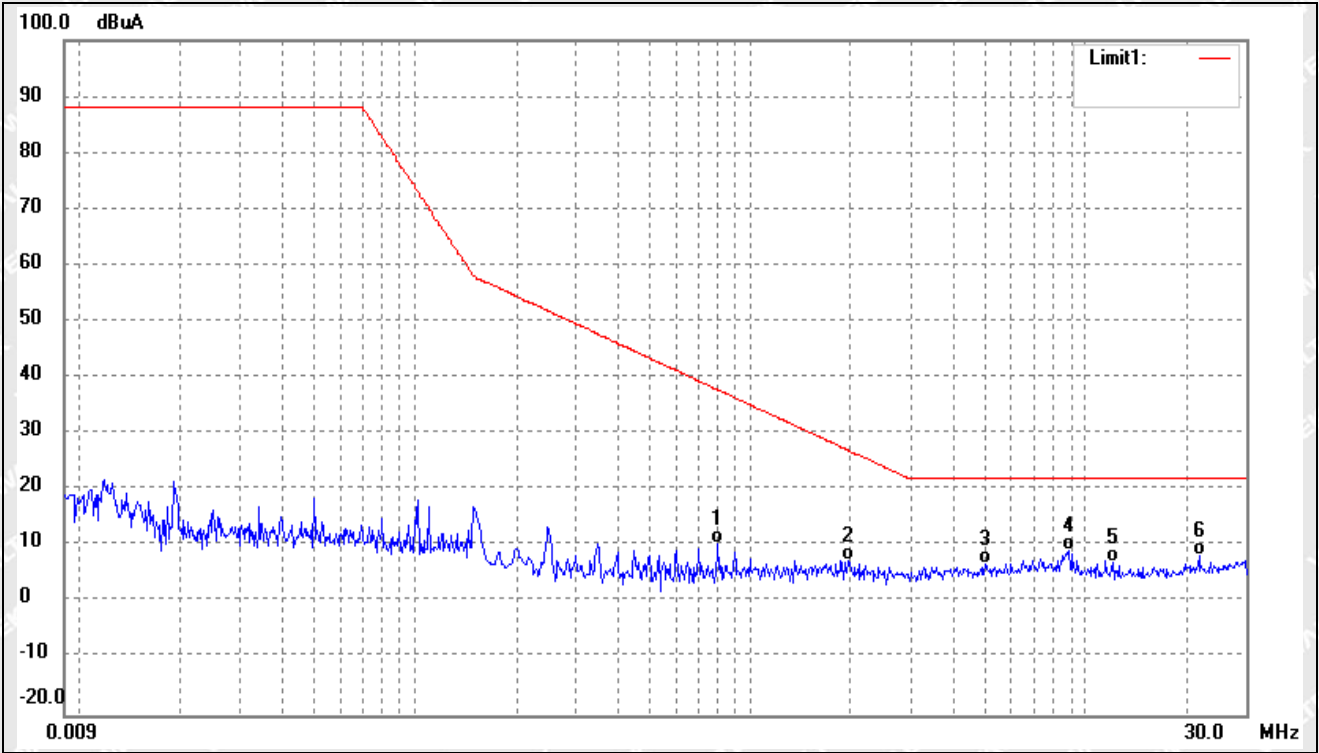
Test mode:	TM1	Polarity:	Y
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No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Detector
1	1.6780	8.53	0.00	8.53	28.98	-20.45	QP
2	2.5740	7.33	0.00	7.33	23.84	-16.51	QP
3*	4.5180	7.70	0.00	7.70	22.00	-14.30	QP
4	6.3420	7.40	0.00	7.40	22.00	-14.60	QP
5	11.0980	6.72	0.00	6.72	22.00	-15.28	QP
6	21.7220	6.74	0.00	6.74	22.00	-15.26	QP



Test mode:	TM1	Polarity:	Z
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No.	Frequency (MHz)	Reading (dBuA)	Correct (dB)	Result (dBuA)	Limit (dBuA)	Margin (dB)	Detector
1	0.8020	10.34	0.00	10.34	37.85	-27.51	QP
2	1.9500	7.48	0.00	7.48	27.18	-19.70	QP
3	5.0220	6.89	0.00	6.89	22.00	-15.11	QP
4*	8.8860	9.39	0.00	9.39	22.00	-12.61	QP
5	12.0659	7.04	0.00	7.04	22.00	-14.96	QP
6	21.8260	8.23	0.00	8.23	22.00	-13.77	QP



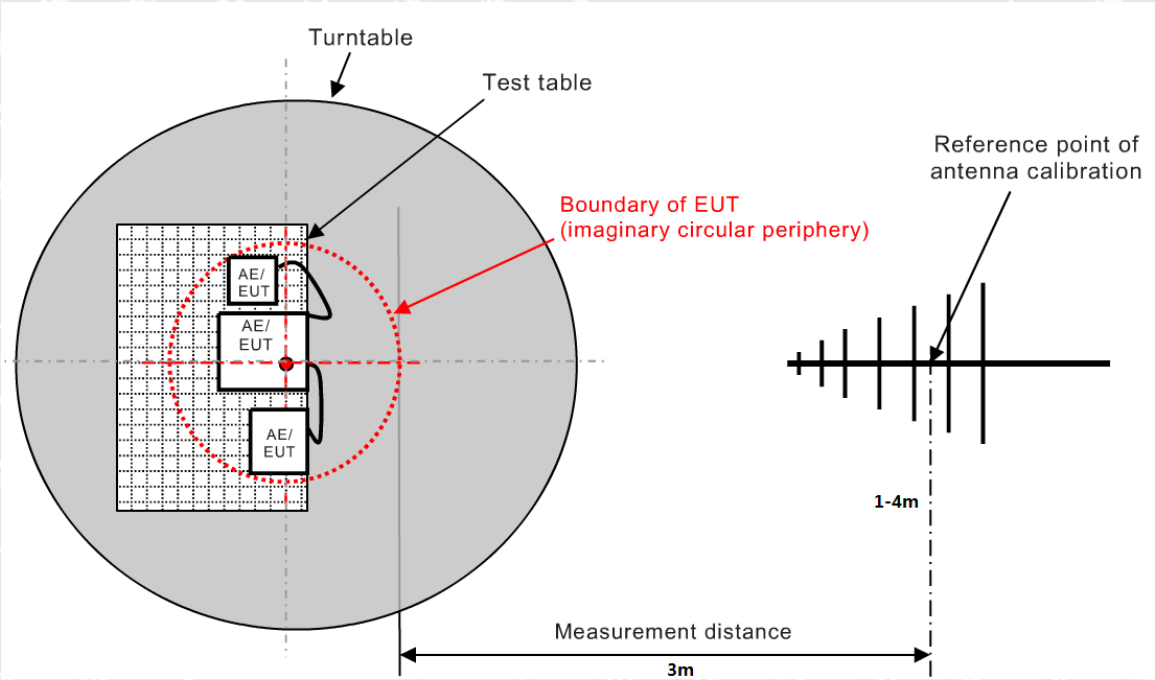
5. Radiated Emission

5.1 Measurement Uncertainty

Base on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any radiation emissions measurement.

Measurement uncertainty		
Parameter	Conditions	Uncertainty
Radiated Emissions	Radiated	30-200MHz $\pm 4.52\text{dB}$
		0.2-1GHz $\pm 5.56\text{dB}$

5.2 Basic Test Setup Block Diagram





5.3 Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and the Cable Factor, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\begin{aligned}\text{Corr. Ampl.} &= \text{Indicated Reading} + \text{Correct} \\ \text{Correct} &= \text{Ant. Factor} + \text{Cable Loss} - \text{Ampl. Gain}\end{aligned}$$

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -6dB μ V means the emission is 6dB μ V below the maximum limit for. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{AS/NZS CISPR 15 Limit}$$

5.4 Environmental Conditions

Temperature:	23 °C
Relative Humidity:	53 %
ATM Pressure:	1011 mbar

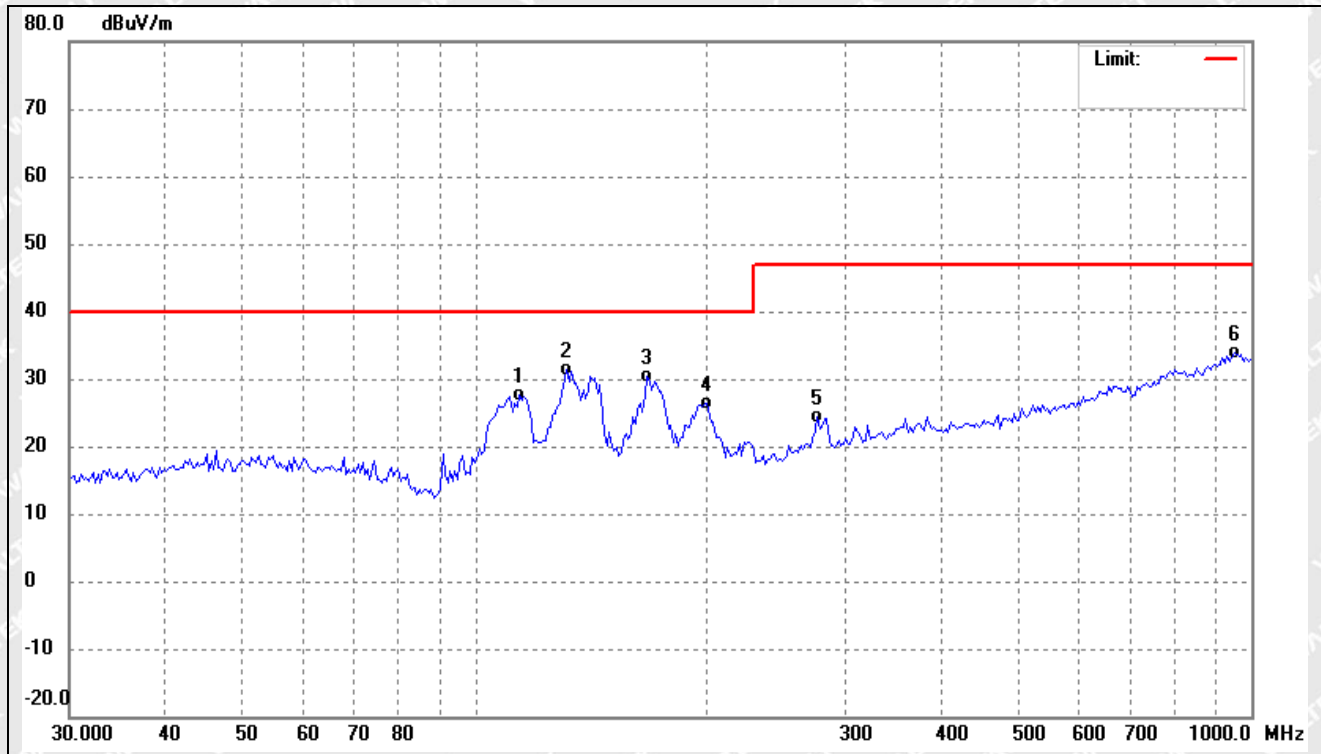
5.5 Summary of Test Results

Please find the results below:

WALTEK



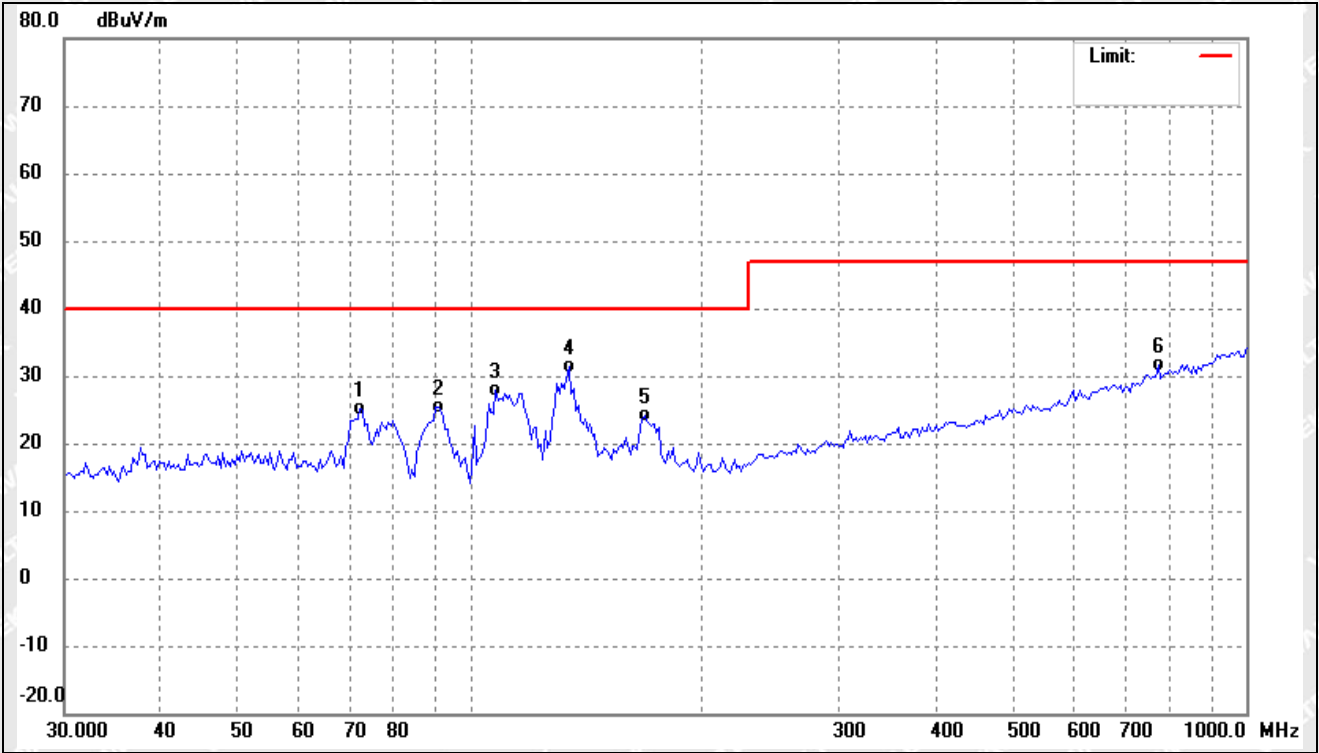
Test mode:	TM1	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	114.0184	39.10	-11.43	27.67	40.00	-12.33	QP
2	131.2235	41.33	-10.01	31.32	40.00	-8.68	QP
3	166.6385	39.04	-8.75	30.29	40.00	-9.71	QP
4	198.6424	37.98	-11.50	26.48	40.00	-13.52	QP
5	276.3818	32.84	-8.46	24.38	47.00	-22.62	QP
6	952.0001	30.90	2.95	33.85	47.00	-13.15	QP



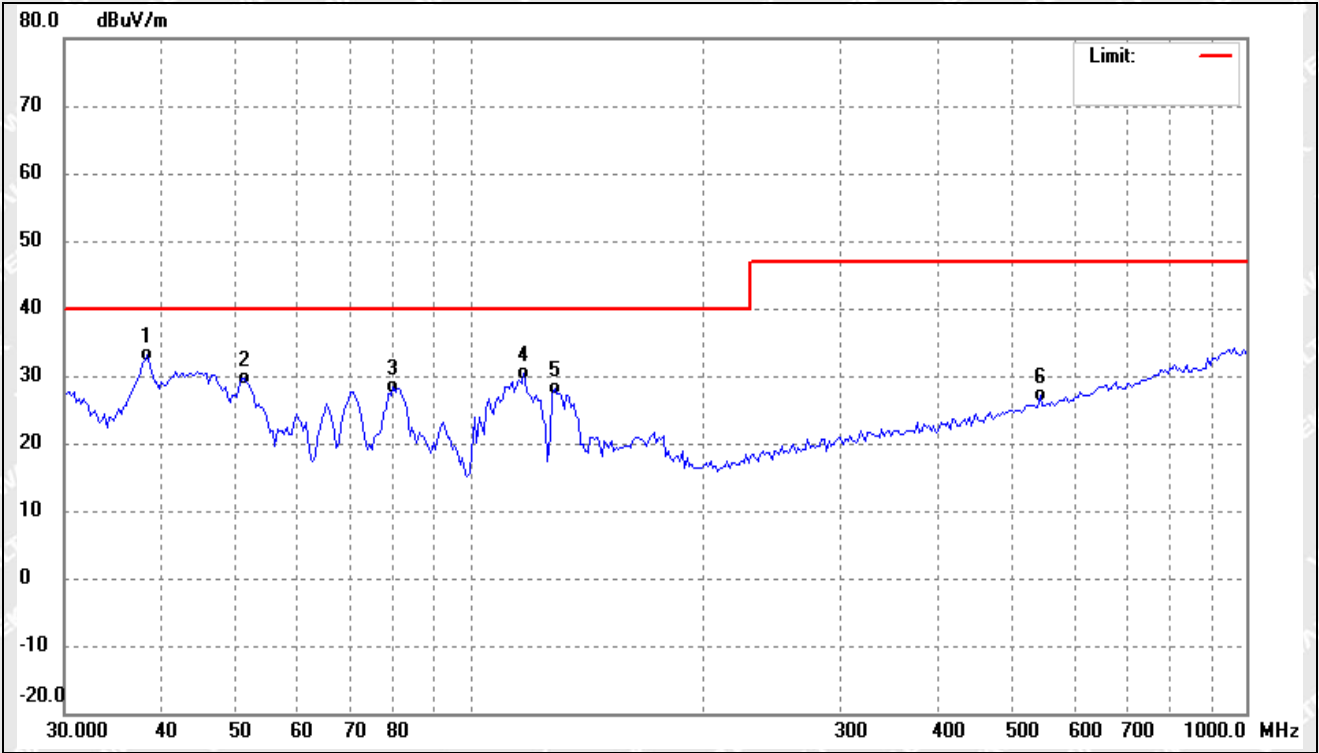
Test mode:	TM1	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	72.2111	36.64	-11.51	25.13	40.00	-14.87	QP
2	91.0574	39.86	-14.44	25.42	40.00	-14.58	QP
3	107.7854	40.10	-12.28	27.82	40.00	-12.18	QP
4	134.0194	41.22	-9.74	31.48	40.00	-8.52	QP
5	167.8136	32.90	-8.76	24.14	40.00	-15.86	QP
6	771.0475	31.04	0.53	31.57	47.00	-15.43	QP



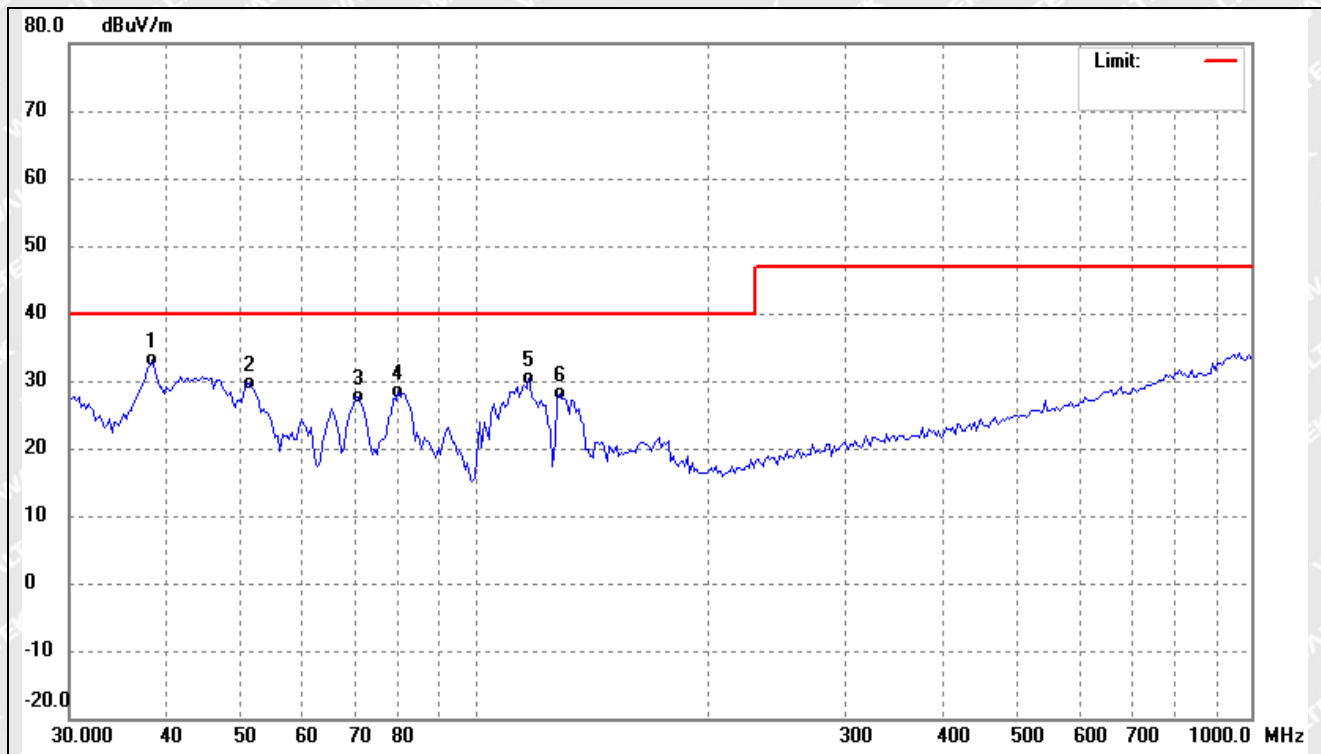
Test mode:	TM2	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.3651	42.96	-9.76	33.20	40.00	-6.80	QP
2	51.1756	38.67	-8.99	29.68	40.00	-10.32	QP
3	79.6764	41.30	-12.96	28.34	40.00	-11.66	QP
4	117.2688	41.58	-11.14	30.44	40.00	-9.56	QP
5	128.4861	38.35	-10.17	28.18	40.00	-11.82	QP
6	542.6104	30.94	-3.81	27.13	47.00	-19.87	QP



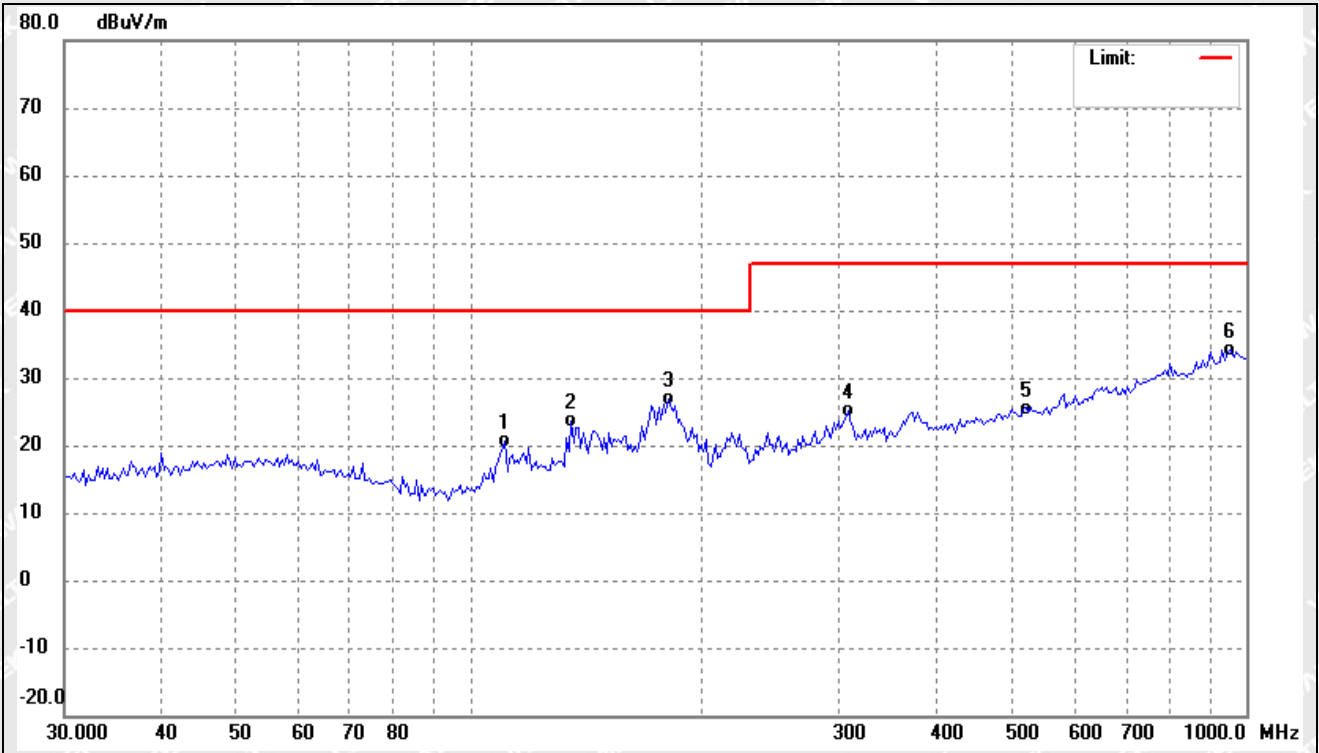
Test mode:	TM2	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.3651	42.96	-9.76	33.20	40.00	-6.80	QP
2	51.1756	38.67	-8.99	29.68	40.00	-10.32	QP
3	70.7047	38.82	-11.25	27.57	40.00	-12.43	QP
4	79.6764	41.30	-12.96	28.34	40.00	-11.66	QP
5	117.2688	41.58	-11.14	30.44	40.00	-9.56	QP
6	128.4861	38.35	-10.17	28.18	40.00	-11.82	QP



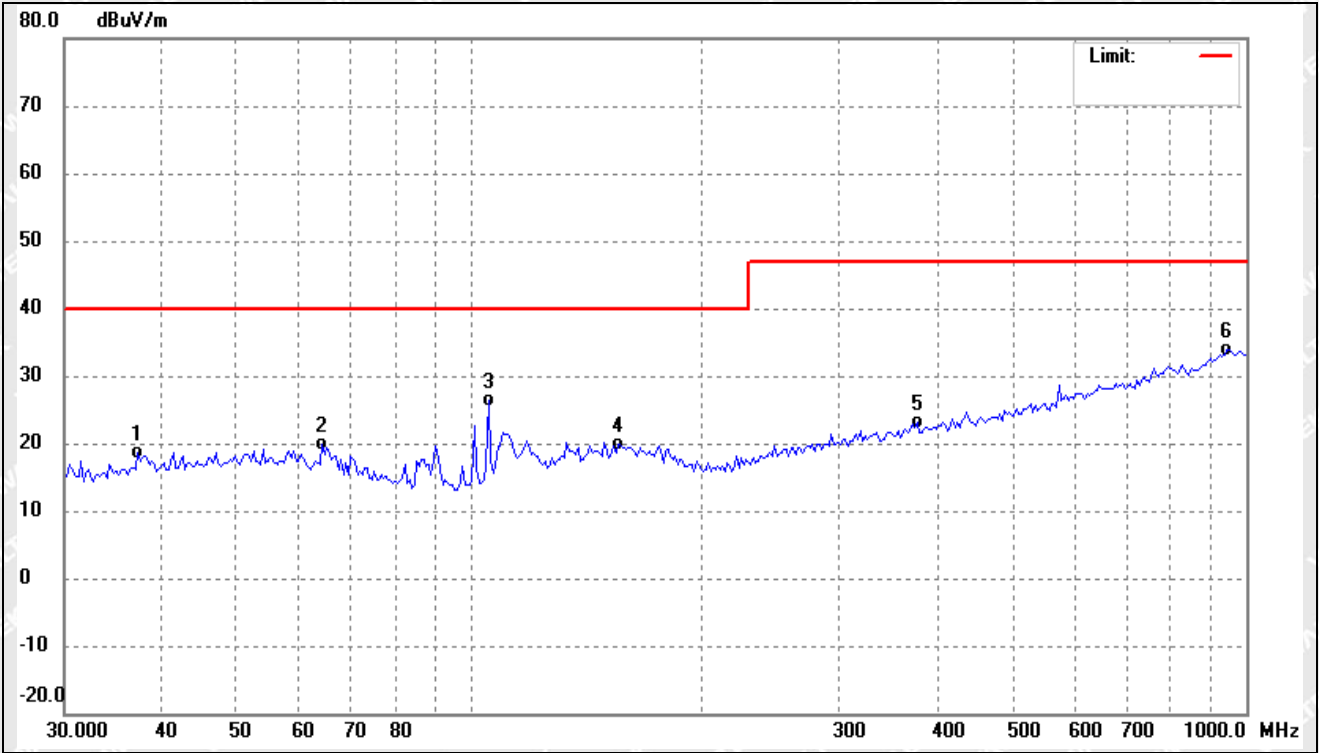
Test mode:	TM3	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	110.8581	32.53	-11.86	20.67	40.00	-19.33	QP
2	134.9645	33.17	-9.66	23.51	40.00	-16.49	QP
3	180.0304	36.67	-9.87	26.80	40.00	-13.20	QP
4	307.1053	32.79	-7.60	25.19	47.00	-21.81	QP
5	516.5651	29.47	-4.01	25.46	47.00	-21.54	QP
6	952.0001	31.20	2.95	34.15	47.00	-12.85	QP



Test mode:	TM3	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	37.3017	28.41	-9.90	18.51	40.00	-21.49	QP
2	64.5319	30.00	-10.14	19.86	40.00	-20.14	QP
3	105.5369	39.04	-12.66	26.38	40.00	-13.62	QP
4	155.3305	28.41	-8.62	19.79	40.00	-20.21	QP
5	376.5227	29.69	-6.55	23.14	47.00	-23.86	QP
6	945.3336	31.06	2.85	33.91	47.00	-13.09	QP



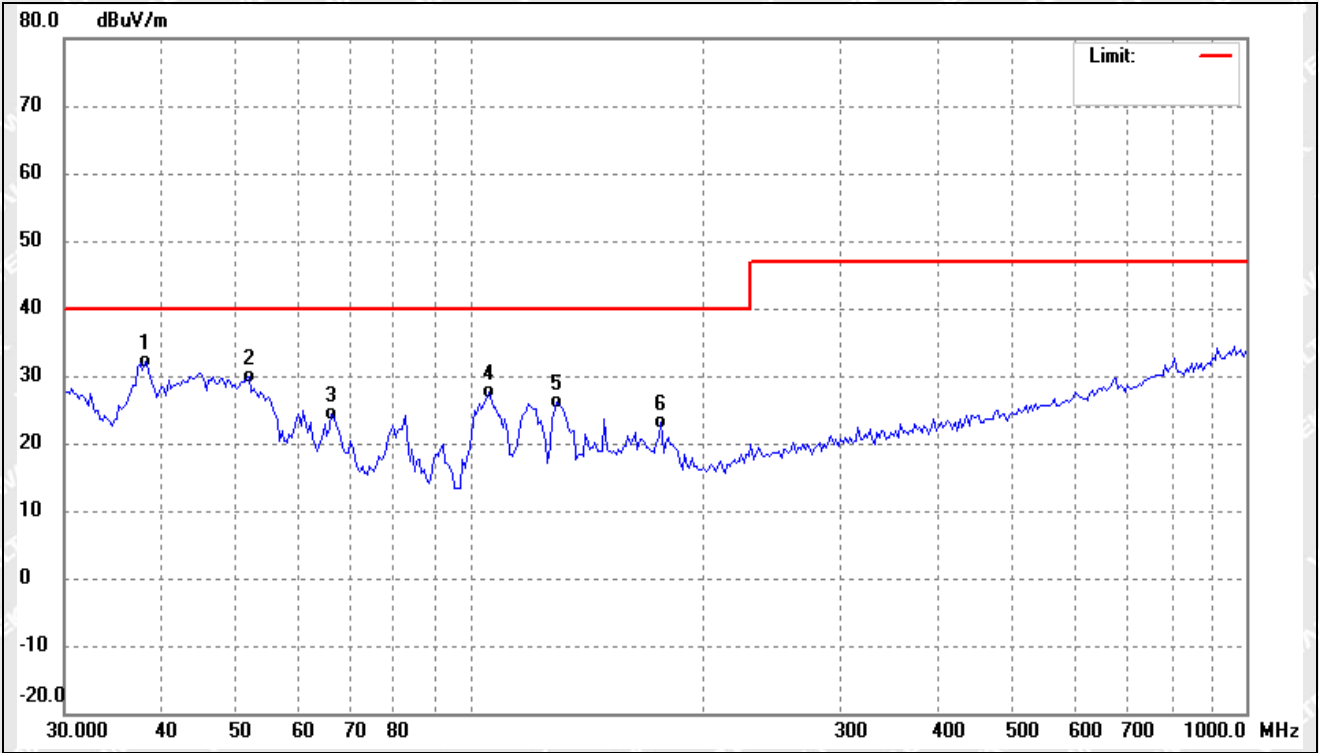
Test mode:	TM4	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV/m)	Correct dB/m	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	36.7811	31.53	-9.97	21.56	40.00	-18.44	QP
2	44.7793	30.74	-9.08	21.66	40.00	-18.34	QP
3	54.9011	34.26	-9.20	25.06	40.00	-14.94	QP
4	108.5455	36.58	-12.17	24.41	40.00	-15.59	QP
5	173.8146	40.62	-9.18	31.44	40.00	-8.56	QP
6	213.1035	39.20	-11.68	27.52	40.00	-12.48	QP



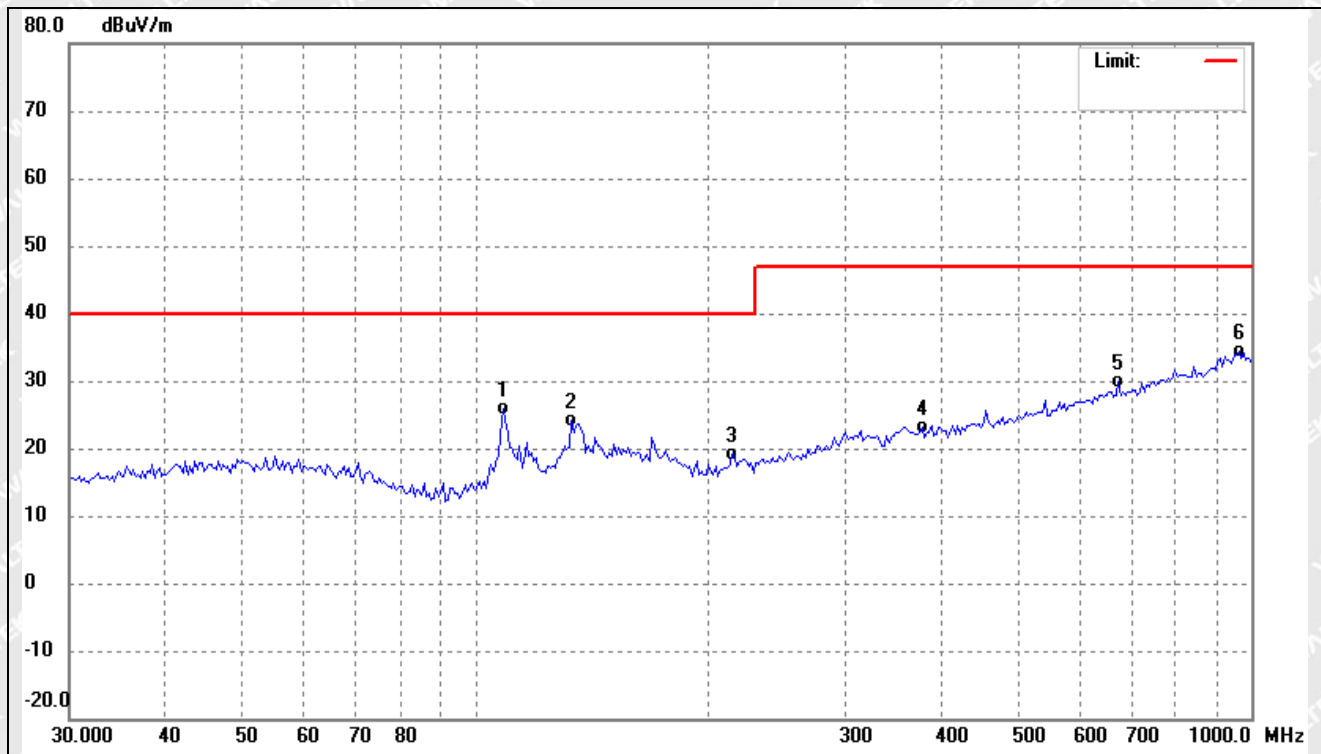
Test mode:	TM4	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.0965	42.04	-9.79	32.25	40.00	-7.75	QP
2	51.8998	38.81	-9.00	29.81	40.00	-10.19	QP
3	66.3714	34.85	-10.41	24.44	40.00	-15.56	QP
4	105.5369	40.18	-12.66	27.52	40.00	-12.48	QP
5	129.3923	36.34	-10.12	26.22	40.00	-13.78	QP
6	176.2748	32.42	-9.39	23.03	40.00	-16.97	QP



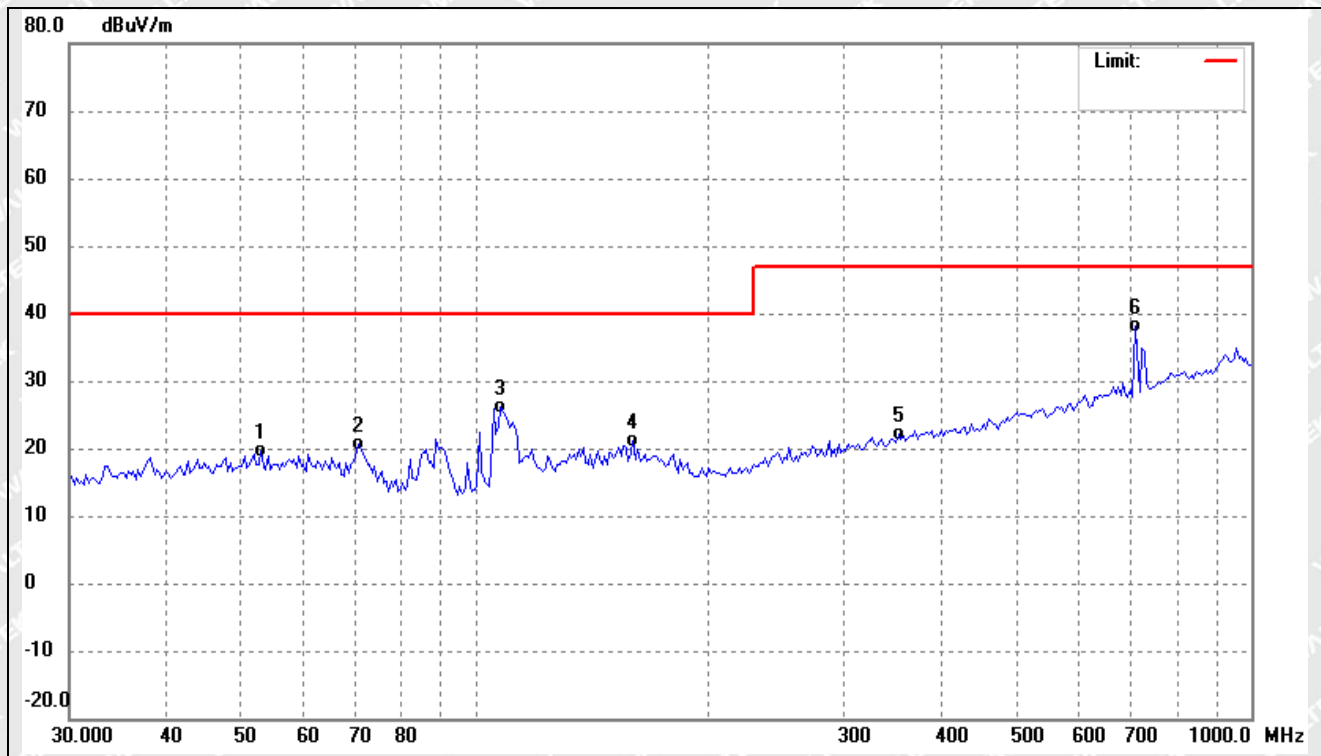
Test mode:	TM5	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	108.5455	38.11	-12.17	25.94	40.00	-14.06	QP
2	133.0809	33.88	-9.85	24.03	40.00	-15.97	QP
3	214.6063	30.73	-11.66	19.07	40.00	-20.93	QP
4	376.5227	29.76	-6.55	23.21	47.00	-23.79	QP
5	674.6768	30.92	-1.14	29.78	47.00	-17.22	QP
6	965.4742	31.32	2.98	34.30	47.00	-12.70	QP



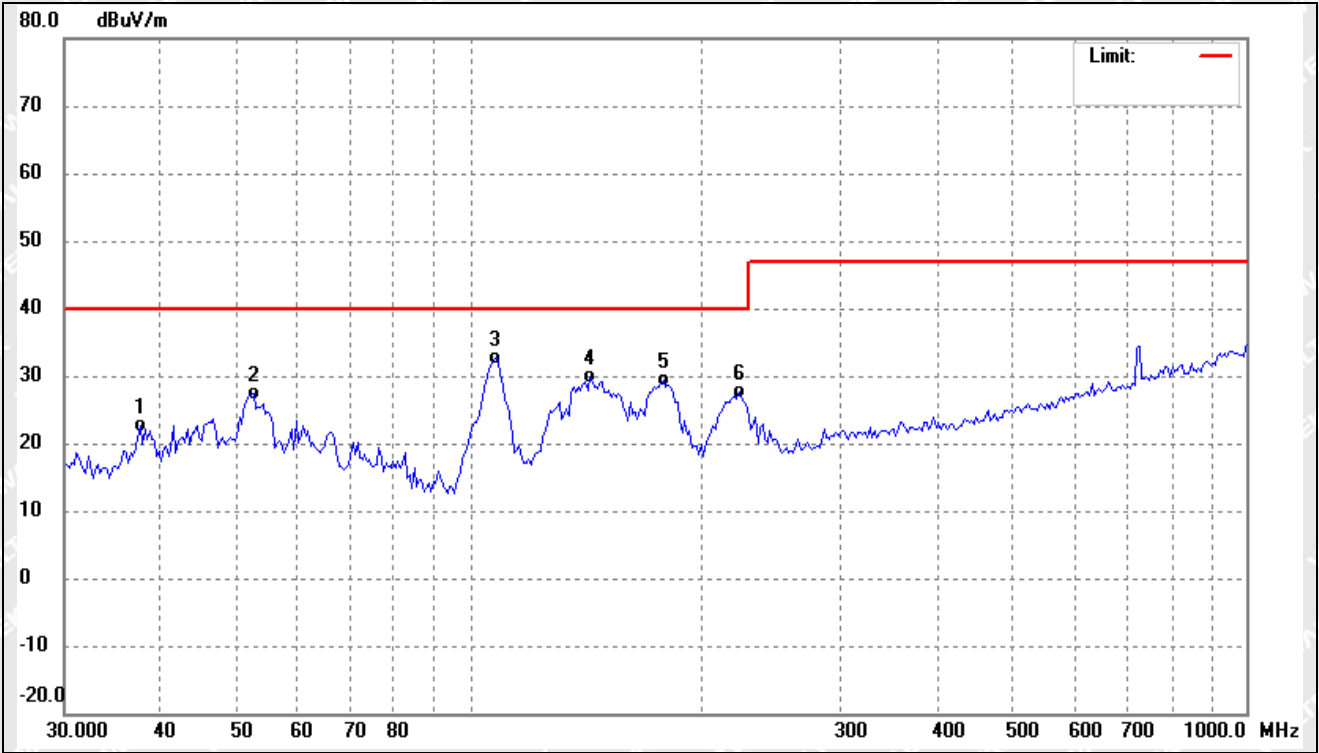
Test mode:	TM5	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	53.0056	28.67	-9.06	19.61	40.00	-20.39	QP
2	70.7047	31.81	-11.25	20.56	40.00	-19.44	QP
3	107.7854	38.44	-12.28	26.16	40.00	-13.84	QP
4	159.7586	29.62	-8.53	21.09	40.00	-18.91	QP
5	350.9722	29.14	-7.01	22.13	47.00	-24.87	QP
6	708.6941	39.00	-0.77	38.23	47.00	-8.77	QP



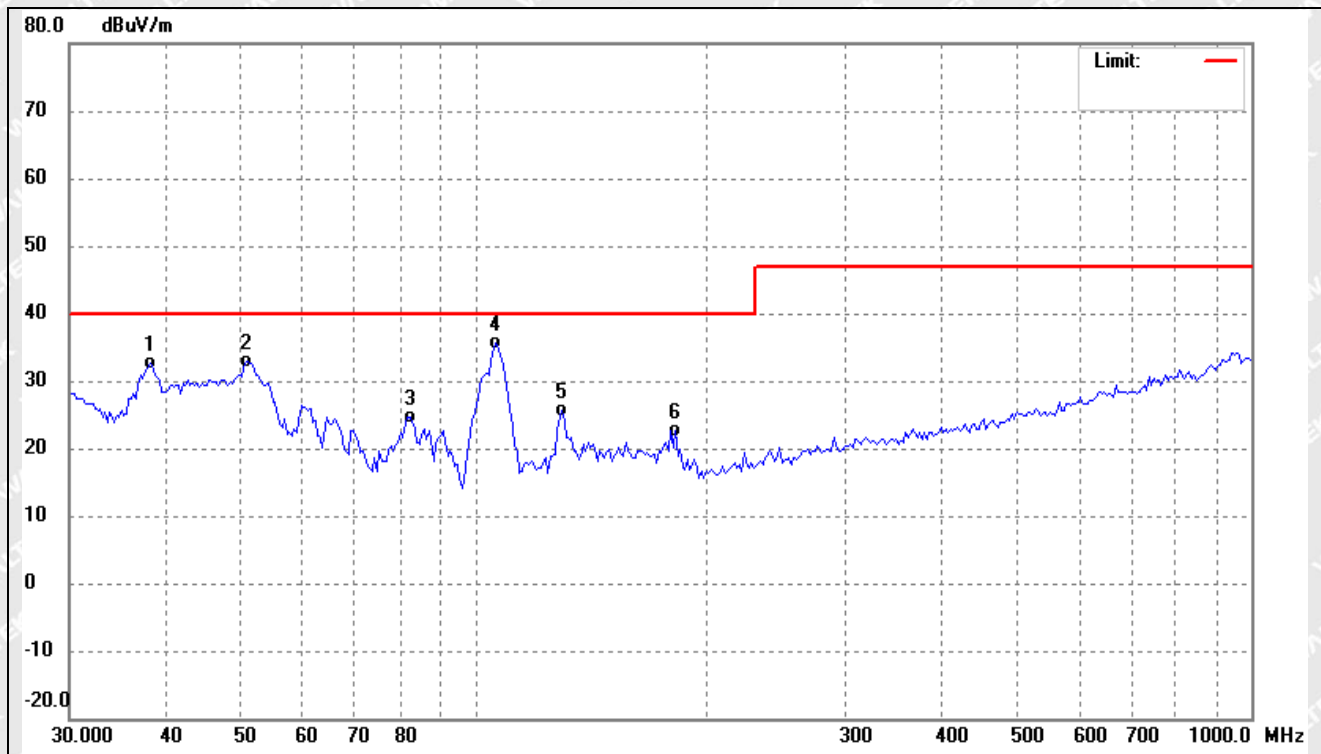
Test mode:	TM6	Polarity:	Horizontal
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	37.5648	32.42	-9.87	22.55	40.00	-17.45	QP
2	52.6345	36.51	-9.04	27.47	40.00	-12.53	QP
3	107.7854	44.94	-12.28	32.66	40.00	-7.34	QP
4	142.7692	39.08	-9.19	29.89	40.00	-10.11	QP
5	177.5179	39.04	-9.56	29.48	40.00	-10.52	QP
6	222.2807	39.07	-11.50	27.57	40.00	-12.43	QP



Test mode:	TM6	Polarity:	Vertical
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No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	38.0965	42.48	-9.79	32.69	40.00	-7.31	QP
2	50.8172	41.82	-8.98	32.84	40.00	-7.16	QP
3	82.5257	38.27	-13.53	24.74	40.00	-15.26	QP
4	106.2812	48.06	-12.53	35.53	40.00	-4.47	QP
5	129.3923	35.78	-10.12	25.66	40.00	-14.34	QP
6	181.3000	32.70	-10.00	22.70	40.00	-17.30	QP



EXHIBIT 1 - EUT PHOTOGRAPHS

Please refer to "ANNEX_ASNZS".

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EXHIBIT 2 - TEST SETUP PHOTOGRAPHS

**Conducted Emission
Test Setup**



**Radiation Emission
Test View
(9kHz~30MHz)**





**Radiation Emission
Test View(30MHz to
1GHz)**



WALTEK

***** END OF REPORT *****